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NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
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NEWS 4 Apr 09 ZDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
NEWS 33 Nov 25 More calculated properties added to REGISTRY
NEWS 34 Dec 02 TIBKAT will be removed from STN
NEWS 35 Dec 04 CSA files on STN

NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

NEWS HOURS STN Operating Hours Plus Help Desk Availability
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NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

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Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:08:47 ON 06 DEC 2002

=> FIL REG		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 17:08:54 ON 06 DEC 2002
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STRUCTURE FILE UPDATES: 5 DEC 2002 HIGHEST RN 475231-25-5
DICTIONARY FILE UPDATES: 5 DEC 2002 HIGHEST RN 475231-25-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

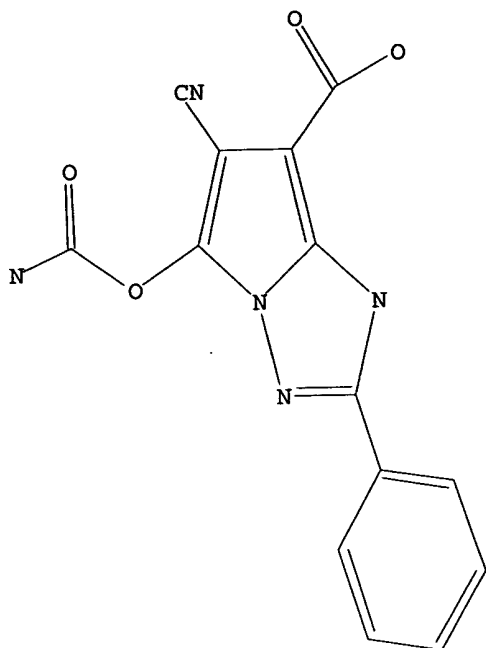
Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>
Uploading 09963584.str

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR

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Structure attributes must be viewed using STN Express query preparation.

```
=> s l1 sss sam
SAMPLE SEARCH INITIATED 17:09:15 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE
```

100.0% PROCESSED 13 ITERATIONS
SEARCH TIME: 00.00.02

5 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 44 TO 476
PROJECTED ANSWERS: 5 TO 234

L2 5 SEA SSS SAM L1

```
=> s l1 full
FULL SEARCH INITIATED 17:09:21 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 291 TO ITERATE
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100.0% PROCESSED 291 ITERATIONS
SEARCH TIME: 00.00.01

106 ANSWERS

L3 106 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
140.28	140.49

FILE 'CAPLUS' ENTERED AT 17:09:25 ON 06 DEC 2002
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FILE COVERS 1907 - 6 Dec 2002 VOL 137 ISS 24
FILE LAST UPDATED: 5 Dec 2002 (20021205/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s l3 full
L4 66 L3

=> d l4 1-66 ibib abs hitstr

L4 ANSWER 1 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:768215 CAPLUS
DOCUMENT NUMBER: 137:286351
TITLE: Silver halide color photographic material and image
and color proof formation
INVENTOR(S): Fukushima, Susumu; Yoneyama, Hiroyuki; Okazaki,
Kentaro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 98 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002296719	A2	20021009	JP 2001-102590	20010330

OTHER SOURCE(S): MARPAT 137:286351
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The material has .gtoreq.1 Ag halide emulsion layer contg. cyan, magenta, and yellow coupler, resp. and .gtoreq.1 light insensitive hydrophilic colloid layer without color formation. At least one emulsion layer contains Ag halide grains with AgCl content .gtoreq.95 mol%, I (Rz = substituent; n = 1-4) and II (R1-4 = H, alkyl, aryl; R5 = aryl; sum of C no. of R1-5 >13), where (B + C)/A is .gtoreq.0.2 mol ratio (A = total coating vol. of the couplers; B = that of I; C = that of II) and the coupler is not III (Ar = Ph having .gtoreq.1 halo, alkyl, alkoxy, cyano,

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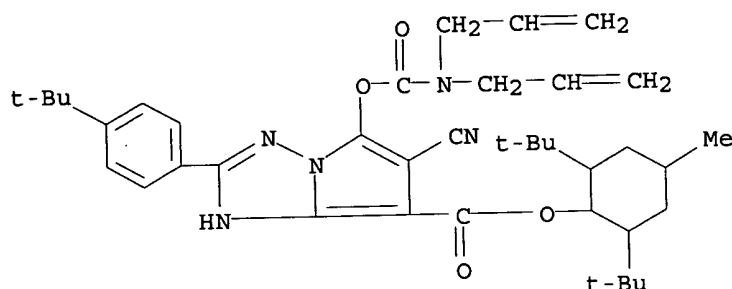
alkoxycarbonyl, ; Y = alkoxy, halo; R1 = acylamino, sulfonamide, alkoxycarbonyl carbamoyl, sulfamoyl, imide, halo alkoxy, alkyl, alkylthio, m = 1-4; X = H, releasing group after coupling with oxidized arom. primary amine). An image is formed by scanning-exposing the material for time .ltoreq.10-3 s/pixel and then processing it with a color developer contg. N-ethyl-N-(.beta.-methanesulfonamido ethyl)-3-methyl-4-aminoaniline. A color proof image is formed by exposing the material using .gtoreq.3 light source units with each different wavelength, in which .gtoreq.1 unit comprises multiple sources selected from lasers and light emitting diodes having same wavelength, resp. The material showed rapid processability, reduced processing variation, and improved whiteness and sharpness.

IT 184947-09-9 210965-01-8

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; photog. film contg. hydroquinone and pyrazolidone
compds. for high contrast and fog inhibition)

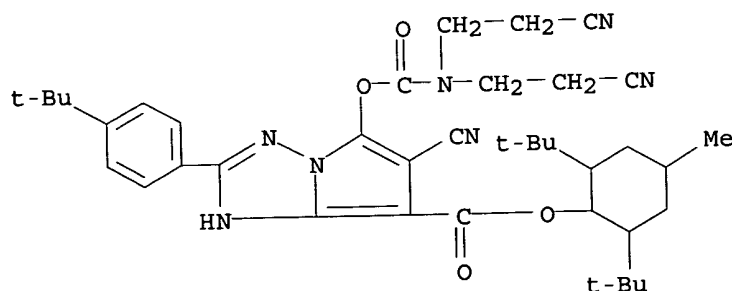
RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 210965-01-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:750925 CAPLUS

DOCUMENT NUMBER: 137:286347

TITLE: Silver halide color photographic materials containing pyrrolo triazole type cyan couplers.

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.

09963584

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002287313	A2	20021003	JP 2001-85932	20010323

OTHER SOURCE(S): MARPAT 137:286347

AB The disclosed color photog. materials contain pyrrolo triazole derivs. as cyan couplers and bisphenol type image stabilizers. The photog. materials show good color reproducibility and excellent image stability.

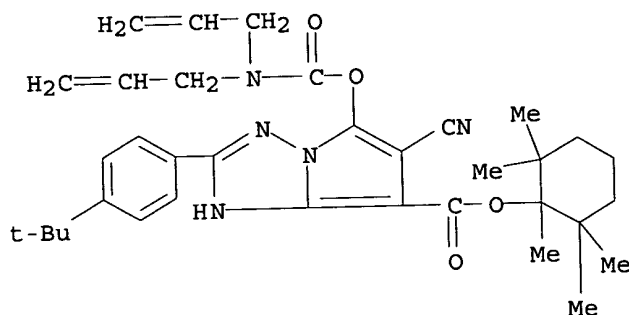
IT 464926-25-8 464926-27-0 464926-28-1

464926-29-2

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. cyan coupler)

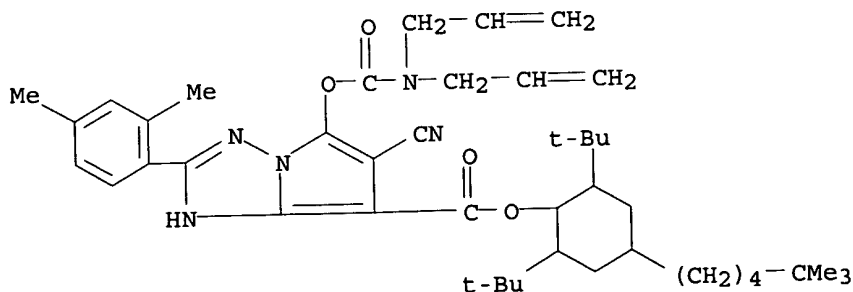
RN 464926-25-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 1,2,2,6,6-pentamethylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 464926-27-0 CAPLUS

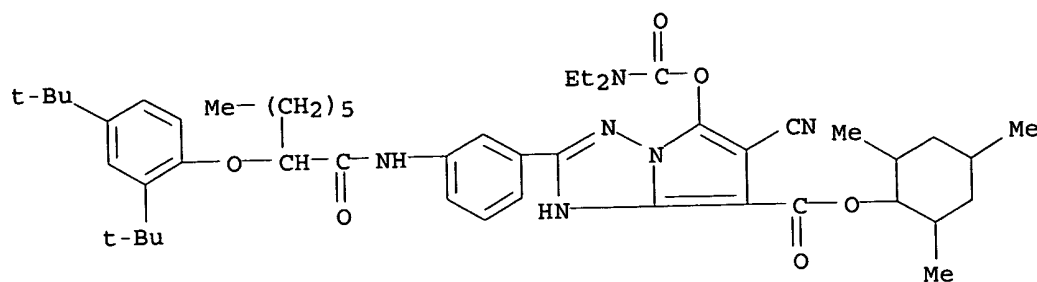
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,4-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-(5,5-dimethylhexyl)cyclohexyl ester (9CI) (CA INDEX NAME)



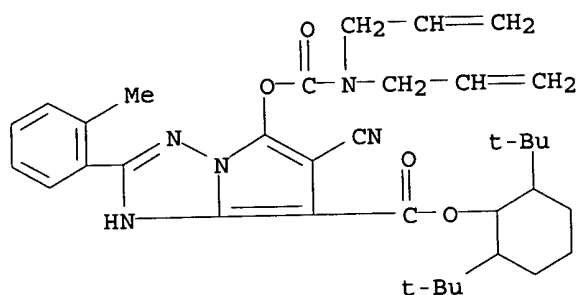
RN 464926-28-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylethyl)phenoxy]-1-oxooctyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,4,6-trimethylcyclohexyl ester (9CI) (CA INDEX NAME)

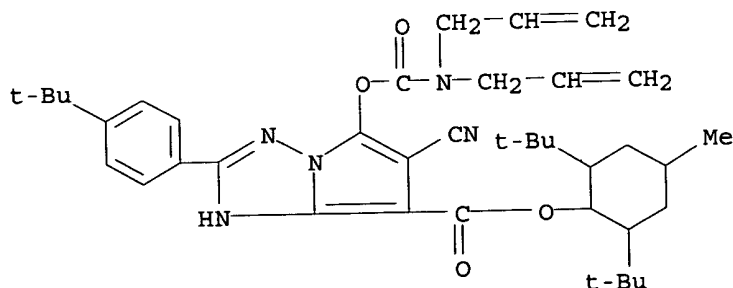
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RN 464926-29-2 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



IT 184947-09-9P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (synthesis and use as photog. cyan coupler)
 RN 184947-09-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:748346 CAPLUS
 DOCUMENT NUMBER: 137:286336
 TITLE: Silver halide color photographic materials with pyrrolo triazole type cyan couplers.

09963584

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002287312	A2	20021003	JP 2001-85931	20010323

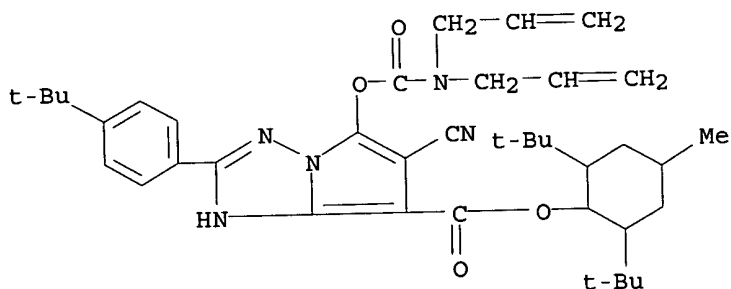
OTHER SOURCE(S): MARPAT 137:286336

AB Silver halide color photoog. materials contain pyrrolo triazole type cyan couplers and bphenylbenzofuranone deriv. type image stabilizers. The color photog. materials show good color reproducibility and image stability.

IT **184947-09-9P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photog. cyan couplers)

RN 184947-09-9 CAPLUS

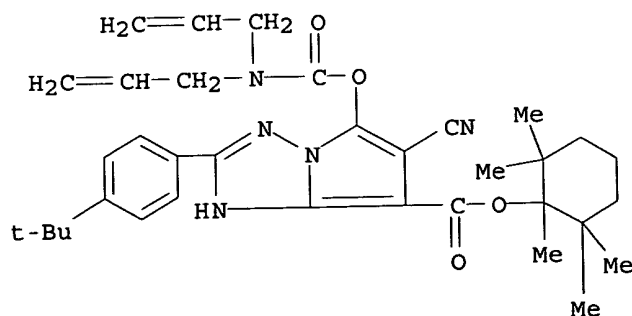
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



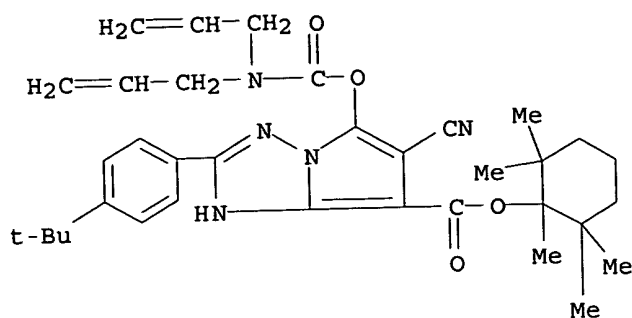
IT **464926-25-8 464926-26-9 464926-27-0**
464926-28-1 464926-29-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. cyan couplers)

RN 464926-25-8 CAPLUS

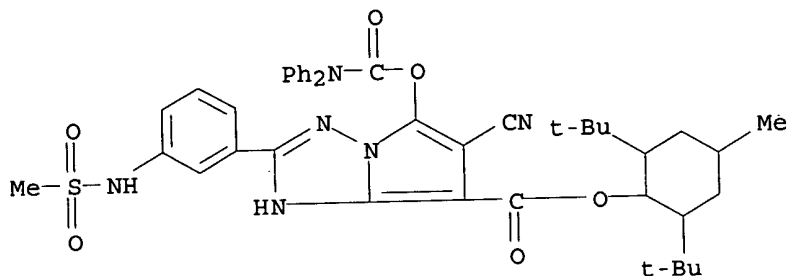
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 1,2,2,6,6-pentamethylcyclohexyl ester (9CI) (CA INDEX NAME)



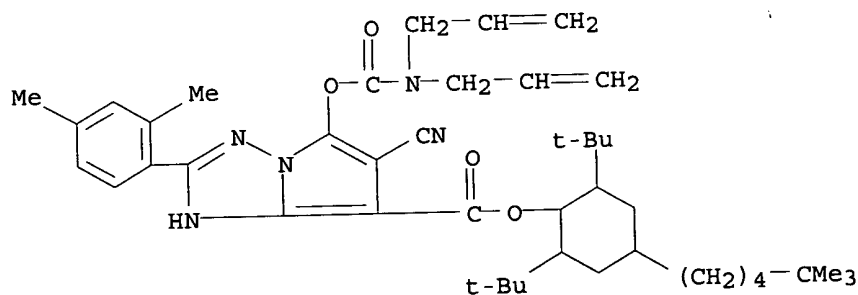
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RN 464926-26-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[[(diphenylamino)carbonyl]oxy]-2-[3-[(methylsulfonyl)amino]phenyl]]-,
 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

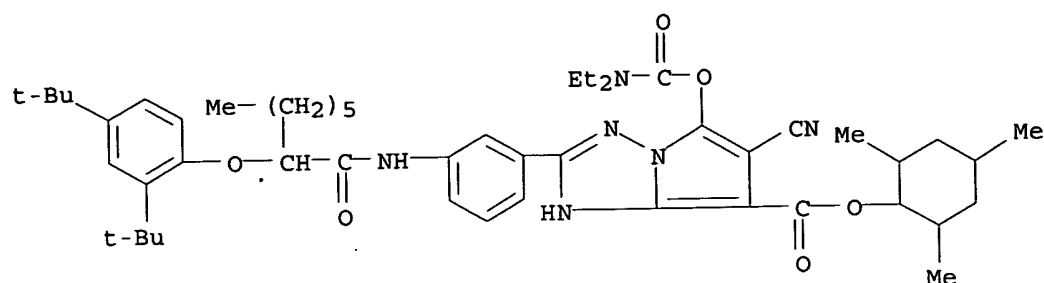


RN 464926-27-0 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,4-
 dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-,
 2,6-bis(1,1-dimethylethyl)-4-(5,5-dimethylhexyl)cyclohexyl ester (9CI)
 (CA INDEX NAME)

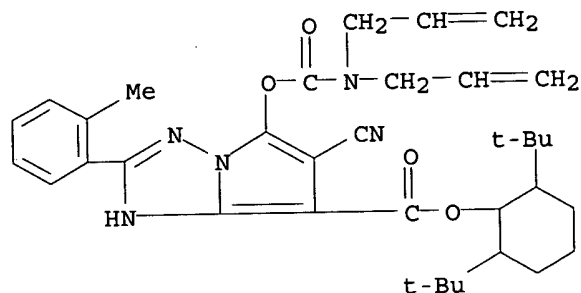


RN 464926-28-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-
 dimethylethyl)phenoxy]-1-oxooctyl]amino]phenyl]-6-cyano-5-
 [[[(diethylamino)carbonyl]oxy]-, 2,4,6-trimethylcyclohexyl ester (9CI) (CA
 INDEX NAME)

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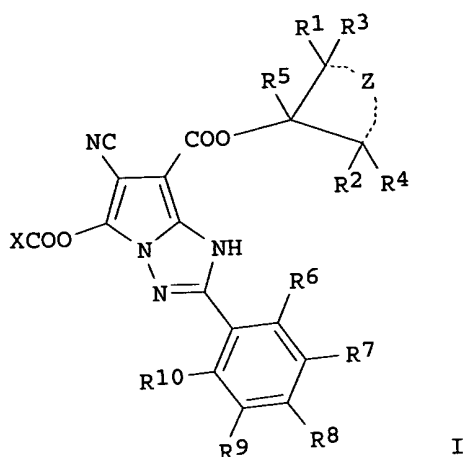
RN 464926-29-2 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:748345 CAPLUS
 DOCUMENT NUMBER: 137:286335
 TITLE: Photographic couplers and silver halide color photographic materials.
 INVENTOR(S): Seto, Nobuo; Nakamine, Takeshi; Deguchi, Yasuaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002287311	A2	20021003	JP 2001-85930	20010323

OTHER SOURCE(S): MARPAT 137:286335
 GI



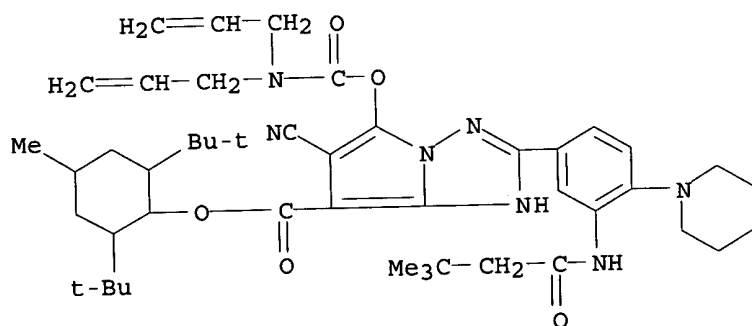
AB Coupler of Formula I (R1-5, H, R6, R9, R10 = H or substituent; Z = group of atoms needed to complete a ring; R7, R8 = acylamino, amino, N-heterocyclyl; adjacent R6-10 may combine to form rings) and Ag halide photog. photosensitive materials contg. the coupler are disclosed. The coupler give stable color images of high optical d. and light-fastness.

IT 463964-11-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pyrrolo triazole deriv. color photog cyan coupler)

RN 463964-11-6 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(3,3-dimethyl-1-oxobutyl)amino]-4-(1-piperidinyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



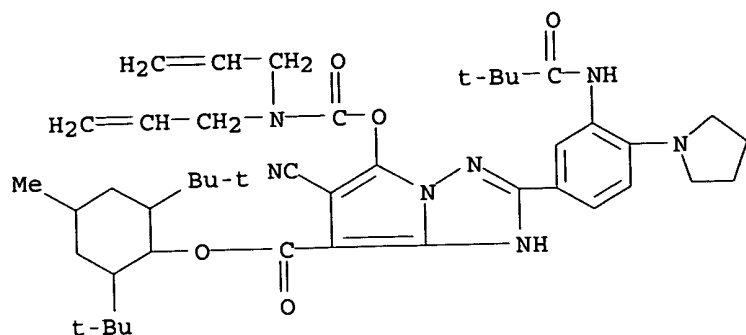
IT 463964-04-7 463964-05-8 463964-06-9
463964-07-0 463964-08-1 463964-09-2
463964-12-7

RL: TEM (Technical or engineered material use); USES (Uses)
(pyrrolo triazole deriv. color photog cyan coupler)

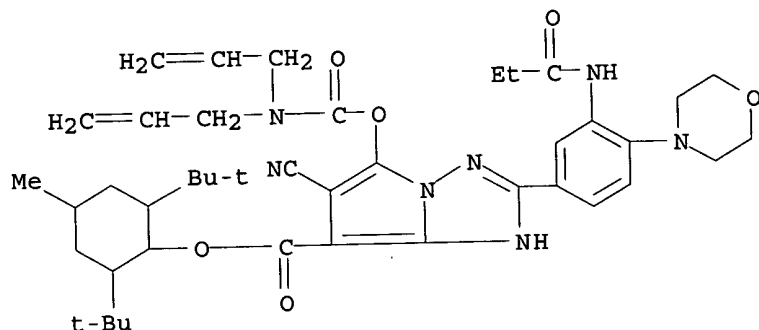
RN 463964-04-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-(1-pyrrolidinyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

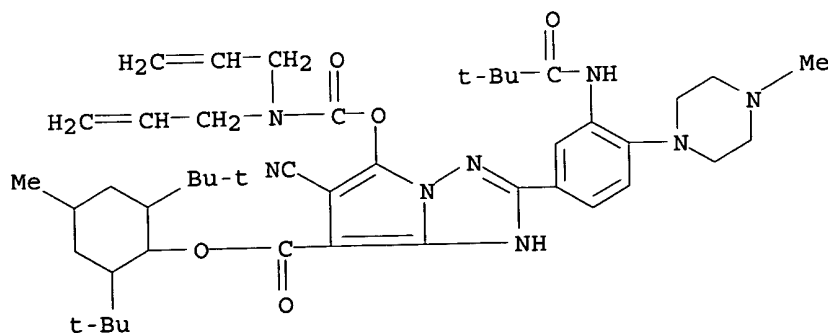
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RN 463964-05-8 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-2-[4-(4-morpholinyl)-3-[(1-oxopropyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

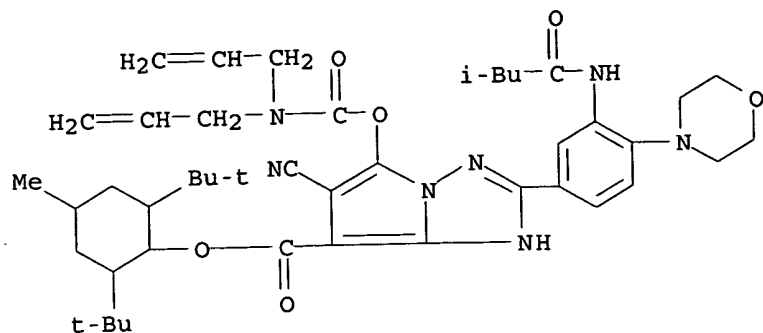


RN 463964-06-9 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-(4-methyl-1-piperazinyl)phenyl]-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

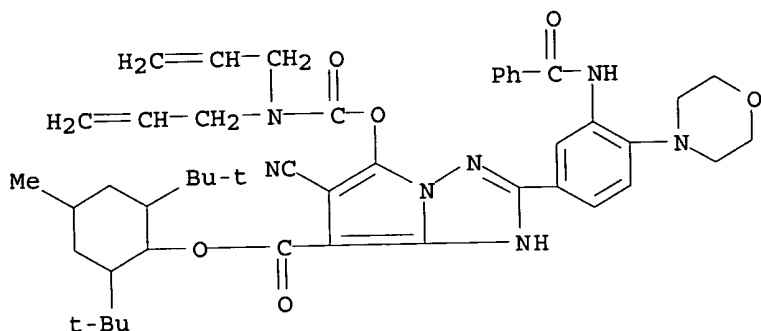


RN 463964-07-0 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-2-[3-[(3-methyl-1-oxobutyl)amino]-4-(4-morpholinyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

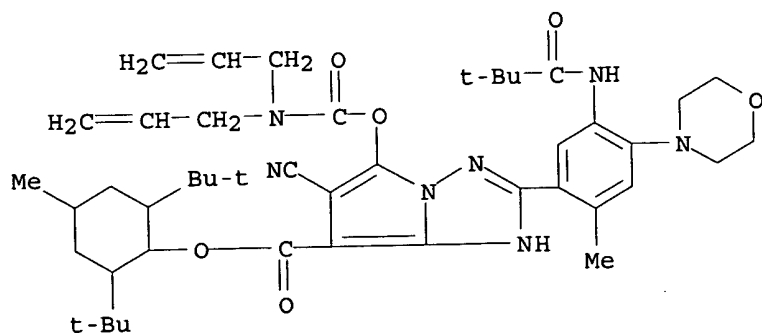
09963584



RN 463964-08-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-(benzoylamino)-4-(4-morpholinyl)phenyl]-6-cyano-5-[[di-2-propenylamino]carbonyloxy]-; 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

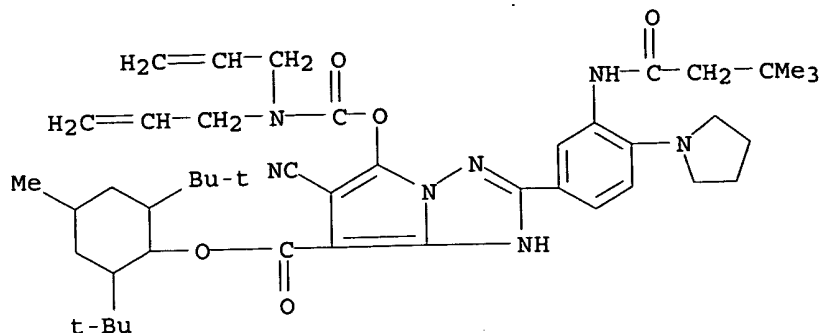


RN 463964-09-2 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[5-[(2,2-dimethyl-1-oxopropyl)amino]-2-methyl-4-(4-morpholinyl)phenyl]-5-[[di-2-propenylamino]carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

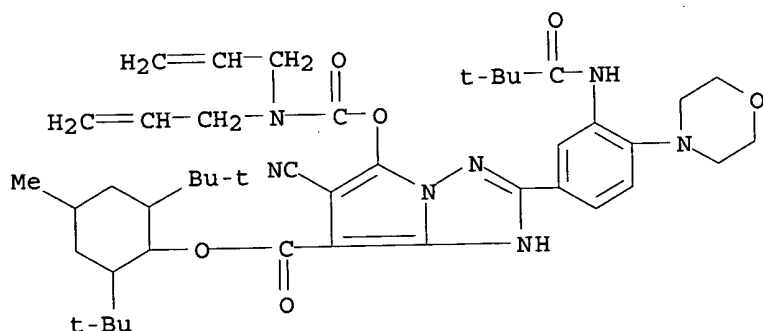


RN 463964-12-7 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(3,3-dimethyl-1-oxobutyl)amino]-4-(1-pyrrolidinyl)phenyl]-5-[[di-2-propenylamino]carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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IT 463964-03-6P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (synthesis of pyrrolo triazole deriv. color photog cyan coupler)
 RN 463964-03-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-(4-morpholinyl)phenyl]-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

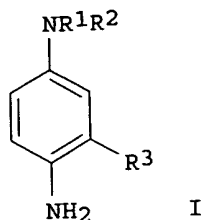


L4 ANSWER 5 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:313322 CAPLUS
 DOCUMENT NUMBER: 136:348326
 TITLE: Silver halide color photographic material and methods for treatment of the material, for image formation, and for formation of color proof
 INVENTOR(S): Takahashi, Osamu; Yoneyama, Hiroyuki; Shimada, Yasuhiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 92 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002122969	A2	20020426	JP 2000-315963	20001016

OTHER SOURCE(S): MARPAT 136:348326
 GI

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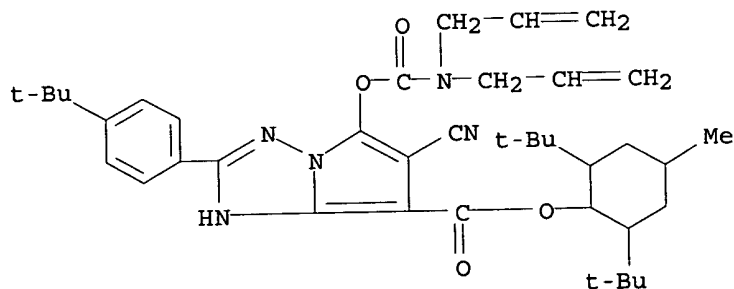
AB The photog. material involves a cyan coupler-contg. Ag halide emulsion layer, a magenta coupler-contg. Ag halide emulsion layer, and a yellow coupler-contg. Ag halide emulsion layer on a support, which satisfies equations regarding wavelength corresponding to absorbance and max. absorbance in spectrophotometry curve of the material after exposure and development using aminoanilines I [R1, R2 = (substituted) alkyl; R3 = substituent] as a main developer. The material after exposure is bleach-fixed with a liq. contg. 1 .times. 10⁻²-2 mol bromide ion and/or 5 .times. 10⁻⁴-5 .times. 10⁻² mol iodide ion. The material is scan for .ltoreq.103 s for exposure and developed. The color proof is manufd. by exposure and development of the above material according to color-sepd. yellow image information, magenta image information, cyan image information, and black image information. The process is suitable for manuf. of so-called direct digital color proof.

IT 184947-09-9 210965-01-8

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; for silver halide color photog. material for manuf. of color proof for printing plate making)

RN 184947-09-9 CAPLUS

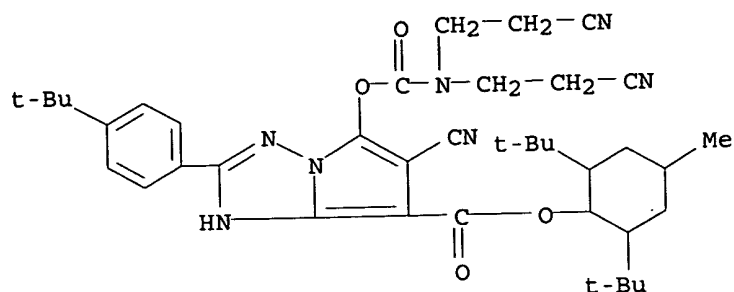
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 210965-01-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

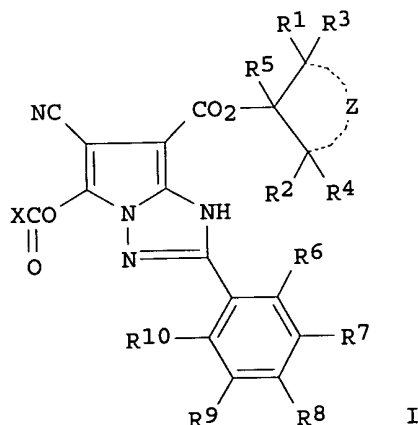
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L4 ANSWER 6 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:270840 CAPLUS
 DOCUMENT NUMBER: 136:301729
 TITLE: Pyrazolotriazole cyan coupler and silver halide color photographic material showing excellent color density, color reproduction and light-fastness
 INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002107882	A2	20020410	JP 2000-295023	20000927

OTHER SOURCE(S): MARPAT 136:301729
 GI



AB The invention relates to a color photog. paper which contains a pyrazolotriazole cyan coupler represented by I (R1-5 = H, substituent; Z = nonmetal atoms for forming ring; X = H, substituent; R6 = halo; R7-10 = H, substituent; R7-R8, R8-R9, R9-R10 may form 5- to 8-membered ring) and optionally a color image stabilizer represented by R10-L-N(R2)R3 [L = single bond, arylene; R1 = radical, alkyl, alkenyl, arylene, heterocycle; R2 = alkyl, alkenyl, arylene, heterocycle; R3 = H, alkyl, alkenyl, arylene, heterocycle; R1-L, R2-L, R3-L, R1-R2, R2-R3, R1-R3 may form 5- to

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7-membered ring]. The pyrazolotriazole cyan coupler provides excellent color d., color reprodn., and light-fastness to the color photog. paper. The combination of the pyrazolotriazole cyan coupler and the above color image stabilizer provides further excellent color d., color reprodn., and light-fastness to the color photog. paper.

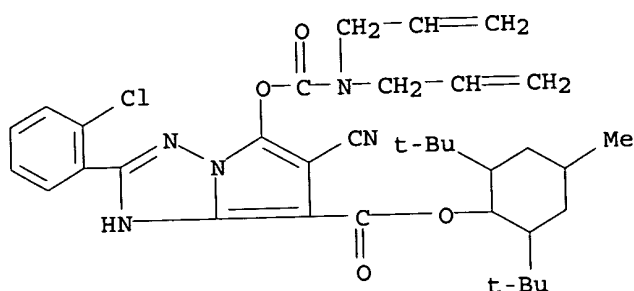
IT 408533-71-1 408533-77-7 408533-81-3

RL: DEV (Device component use); USES (Uses)

(cyan coupler; color photog. paper contg. pyrazolotriazole cyan coupler and specified image stabilizer to achieve excellent color d., color reprodn., and light-fastness)

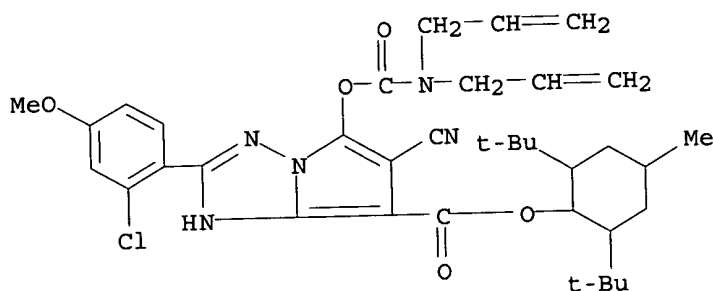
RN 408533-71-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-(2-chlorophenyl)-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



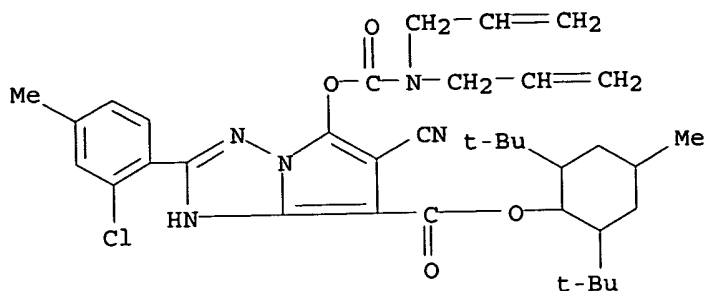
RN 408533-77-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-(2-chloro-4-methoxyphenyl)-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 408533-81-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-(2-chloro-4-methylphenyl)-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:268891 CAPLUS

DOCUMENT NUMBER: 136:301722

TITLE: Silver halide color photographic material showing excellent color density, color reproduction, and light-fastness

INVENTOR(S): Seto, Nobuo; Nakamine, Takeshi; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

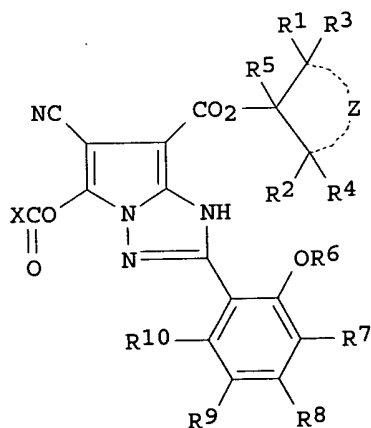
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

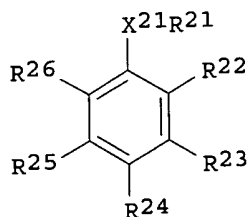
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002107881	A2	20020410	JP 2000-295010	20000927

OTHER SOURCE(S): MARPAT 136:301722

GI



I



II

AB The invention relates to a color photog. paper which contains a pyrazolotriazole coupler represented by I (R1-5 = H, substituent; Z = nonmetal atoms for forming ring; X = H, substituent; R6 = aliph., arom., heterocycle, acyl, aliph. oxycarbonyl, arom. oxycarbonyl, carbamoyl, aliph. sulfonyl, arom. sulfonyl, sulfamoyl; R7-10 = H, substituent; R6-R7, R7-R8, R8-R9, R9-R10 may form 5- to 8-membered ring) and an image stabilizer represented by II (R21 = H, aliph., arom., heterocycle, acyl, aliph. oxycarbonyl, arom. oxycarbonyl, aliph. sulfonyl, arom. sulfonyl;

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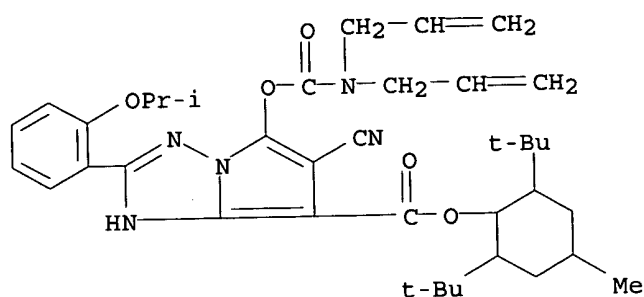
X21 = S, NR27; R22-26 = H, substituent; R27 = H, aliph., arom., heterocycle, acyl, aliph. oxycarbonyl, arom. oxycarbonyl, aliph. sulfonyl, arom. sulfonyl; R21 joining together with R27 may form 5- to 7-membered ring). The combination of the above two compds. provides excellent color d., color reprodn., and light-fastness to the color photog. paper.

IT 408505-01-1

RL: DEV (Device component use); USES (Uses)
(cyan coupler; color photog. paper contg. pyrazolotriazole cyan coupler and specified image stabilizer to achieve excellent color d., color reprodn., and light-fastness)

RN 408505-01-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[2-(1-methylethoxy)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

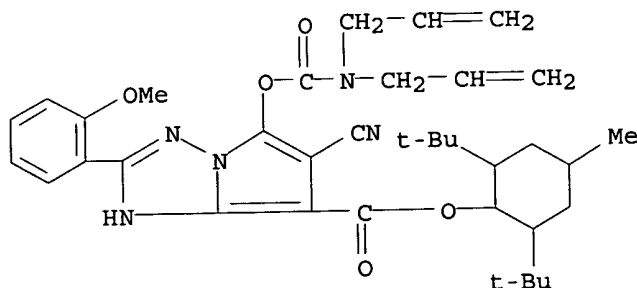


IT 408505-03-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of pyrazolotriazole cyan coupler for color photog. paper showing excellent color d., color reprodn., and light-fastness)

RN 408505-03-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-(2-methoxyphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:253081 CAPLUS

DOCUMENT NUMBER: 136:286530

TITLE: Silver halide color photographic paper comprising pyrrolo-triazole compound as cyan dye-forming coupler

INVENTOR(S): Nakamine, Takeshi; Deguchi, Yasuaki

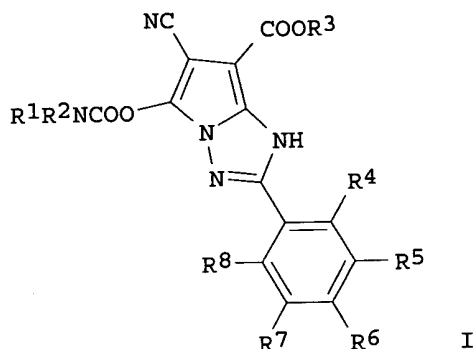
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 64 pp.

09963584

CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1193548	A2	20020403	EP 2001-122625	20010927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002174885	A2	20020621	JP 2001-121827	20010419
CN 1347010	A	20020501	CN 2001-141872	20010921
US 2002076664	A1	20020620	US 2001-963584	20010927
PRIORITY APPLN. INFO.:			JP 2000-297536	A 20000928
OTHER SOURCE(S):			MARPAT 136:286530	
GI				



AB Disclosed is a silver halide color photog. light-sensitive material comprising the pyrrolotriazole cyan coupler of the formula I (R1, R2 = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic; R1 and R2 may bond together to form a 5- or 6-membered nitrogen-contg. heterocycle; R3 = alkyl, cycloalkyl, alkenyl group; R5 = alkyl, aryl; R4, R6, R7 and R8 = H, or a substituent, with the proviso that at least one of R4, R6, R7 and R8 is a substituent, and that two groups of R4 to R8, which adjoin each other, do not bond together to form any ring). The present inventive couplers provide less contamination due to magenta or yellow in cyan color and excellent cyan hue.

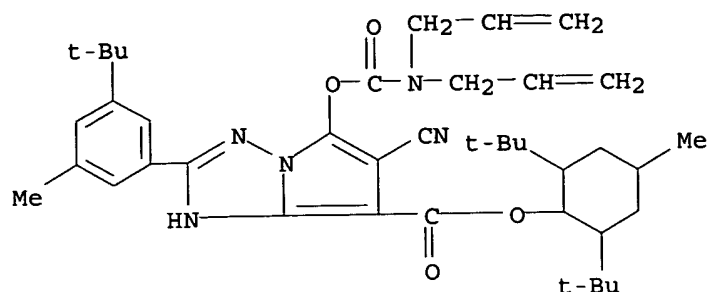
IT 405922-45-4P 405922-48-7P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
 (cyan coupler; silver halide color photog. paper comprising
 pyrrolotriazole compd. as cyan dye-forming coupler)

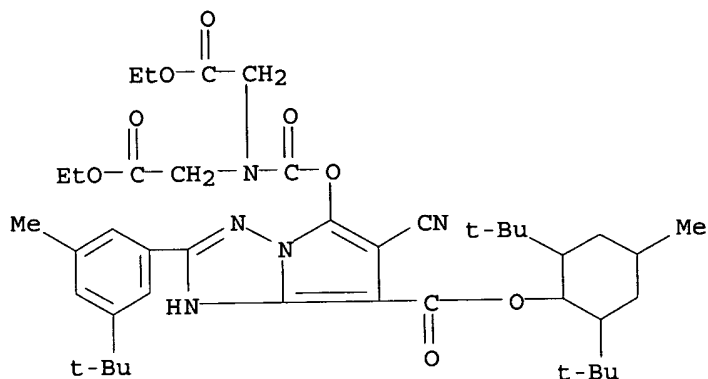
RN 405922-45-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

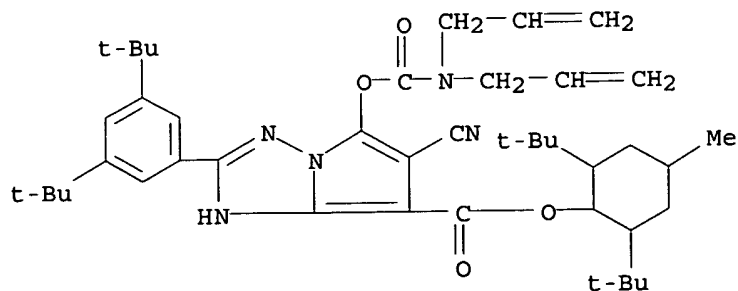
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RN 405922-48-7 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-ethoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI)
 (CA INDEX NAME)



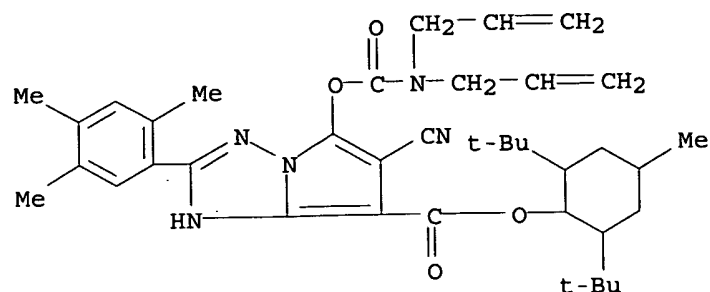
IT 405922-31-8P 405922-32-9P 405922-33-0P
 405922-34-1P 405922-49-8P
 RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cyan coupler; silver halide color photog. paper comprising pyrrolo-triazole compd. as cyan dye-forming coupler)
 RN 405922-31-8 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3,5-bis(1,1-dimethylethyl)phenyl]-6-cyano-5-[[[bis(2-ethoxy-2-oxoethyl)amino]carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



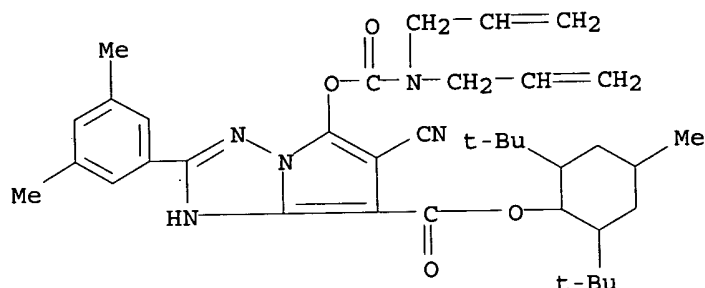
RN 405922-32-9 CAPLUS

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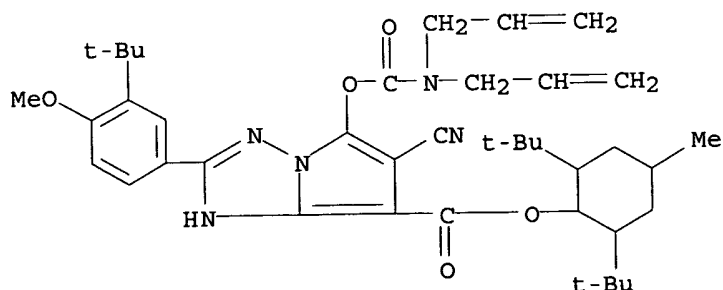
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-(2,4,5-trimethylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-33-0 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(3,5-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

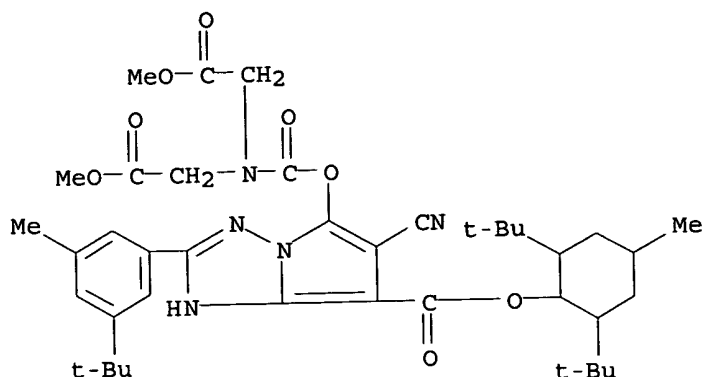


RN 405922-34-1 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-(1,1-dimethylethyl)-4-methoxyphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-49-8 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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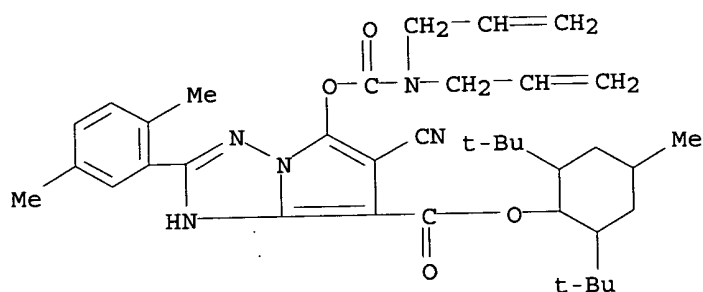


IT 405922-30-7P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyan coupler; silver halide color photog. paper comprising pyrrolo[1,2-b][1,2,4]triazole compd. as cyan dye-forming coupler)

RN 405922-30-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,5-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



IT 405922-37-4 405922-40-9 405922-42-1

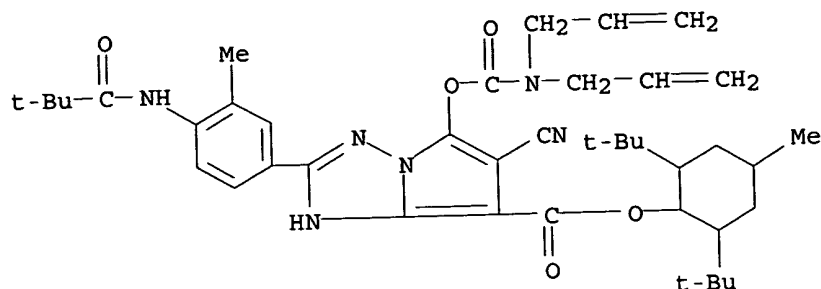
405922-43-2. 405922-47-6

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; silver halide color photog. paper comprising pyrrolo[1,2-b][1,2,4]triazole compd. as cyan dye-forming coupler)

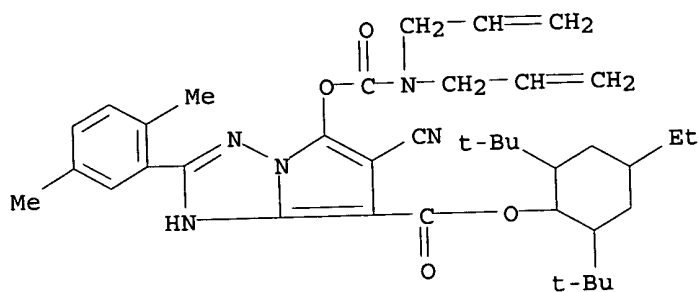
RN 405922-37-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-[(2,2-dimethyl-1-oxopropyl)amino]-3-methylphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

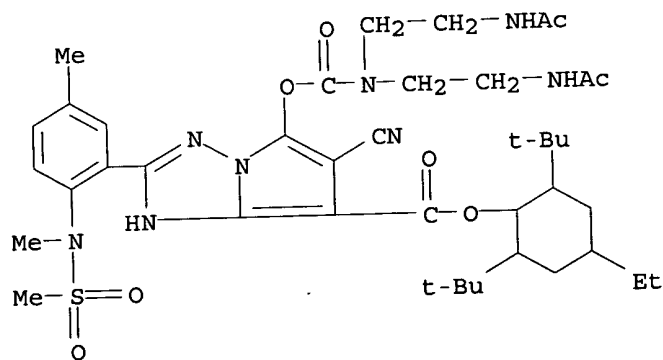
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RN 405922-40-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,5-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-ethylcyclohexyl ester (9CI) (CA INDEX NAME)

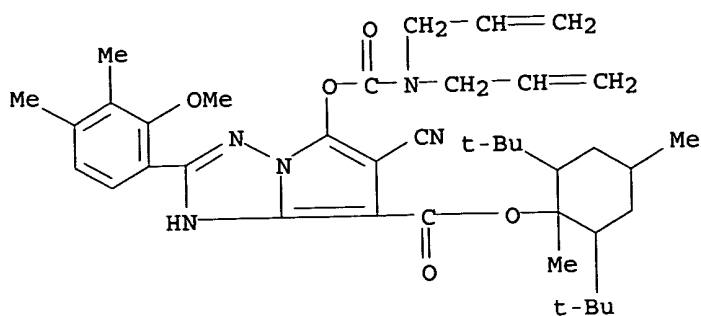


RN 405922-42-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis[2-(acetylamino)ethyl]amino]carbonyl]oxy]-6-cyano-2-[5-methyl-2-[methyl(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-ethylcyclohexyl ester (9CI) (CA INDEX NAME)

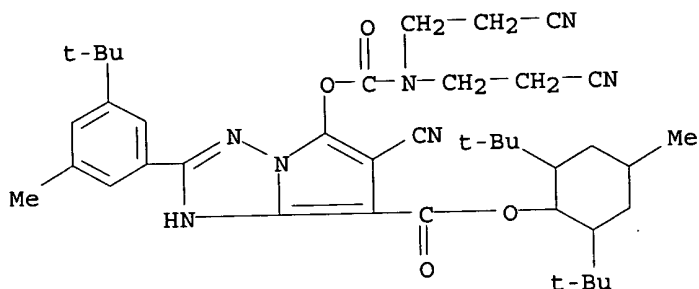


RN 405922-43-2 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-(2-methoxy-3,4-dimethylphenyl)-, 2,6-bis(1,1-dimethylethyl)-1,4-dimethylcyclohexyl ester (9CI) (CA INDEX NAME)

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RN 405922-47-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI)
 (CA INDEX NAME)

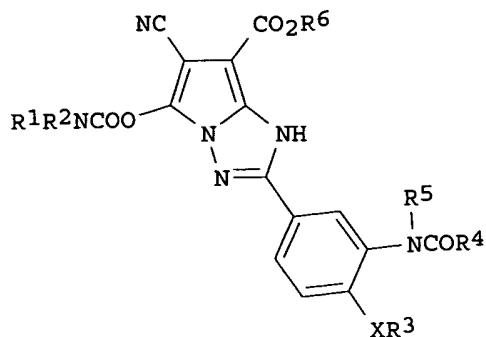


L4 ANSWER 9 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:729888 CAPLUS
 DOCUMENT NUMBER: 135:296113
 TITLE: Silver halide color photographic light-sensitive material, pyrrolotriazole compound and dye-forming compound
 INVENTOR(S): Nakamine, Takeshi; Seto, Nobuo; Sato, Hideaki; Deguchi, Yasuaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 60 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1139170	A2	20011004	EP 2001-107448	20010327
EP 1139170	A3	20020515		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001342189	A2	20011211	JP 2000-221434	20000721
US 2002031736	A1	20020314	US 2001-816246	20010326
CN 1320838	A	20011107	CN 2001-110042	20010327
PRIORITY APPLN. INFO.:			JP 2000-87451	A 20000327
			JP 2000-221434	A 20000721
OTHER SOURCE(S):		MARPAT 135:296113		

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I

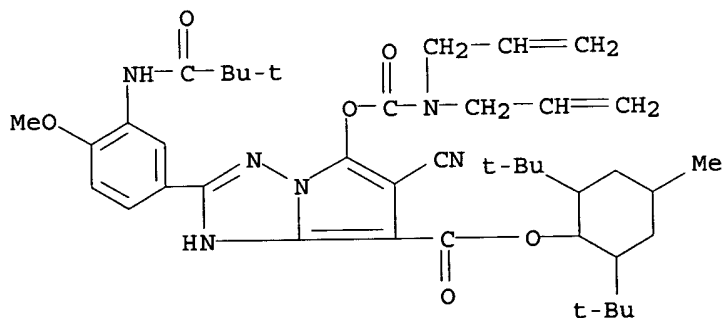
AB The present invention provides a pyrrolotriazole compd. I (R1,2 = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic group; R1 and R2 may bond together to form 5-6 membered nitrogen-contg. heterocycle; R3 = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic group; R4 = alkyl, cycloalkyl, alkenyl, alkoxy or amino group; R5 = H, alkyl or aryl group; R6 = alkyl, cycloalkyl or alkenyl group; and X = O, or S), and a silver halide color photog. light-sensitive material contg. the pyrrolotriazole compd. as a cyan coupler.

IT 364379-18-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pyrrolotriazole compd. as photog. cyan coupler)

RN 364379-18-0 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-methoxyphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



IT 364379-19-1 364379-20-4 364379-29-3
364379-31-7 364379-32-8 364379-33-9
364379-34-0

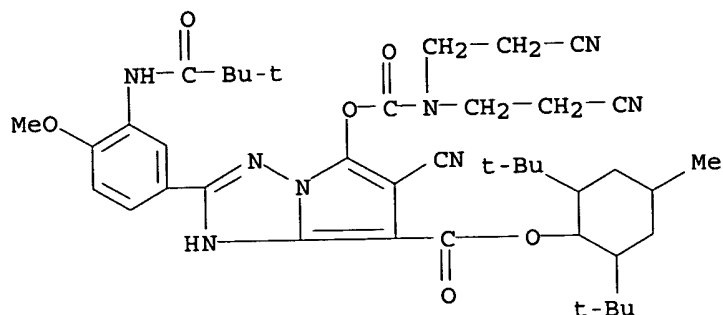
RL: TEM (Technical or engineered material use); USES (Uses)
(pyrrolotriazole compd. as photog. cyan coupler)

RN 364379-19-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-[(2,2-dimethyl-1-

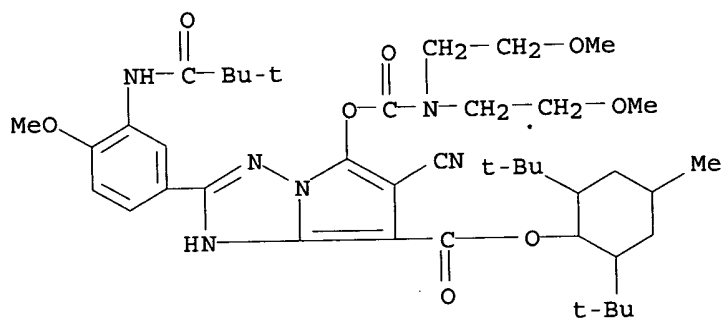
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oxopropyl)amino]-4-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



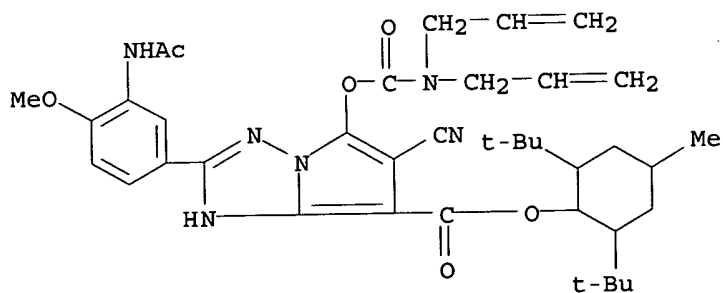
RN 364379-20-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-29-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-(acetylamino)-4-methoxyphenyl]-6-cyano-5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

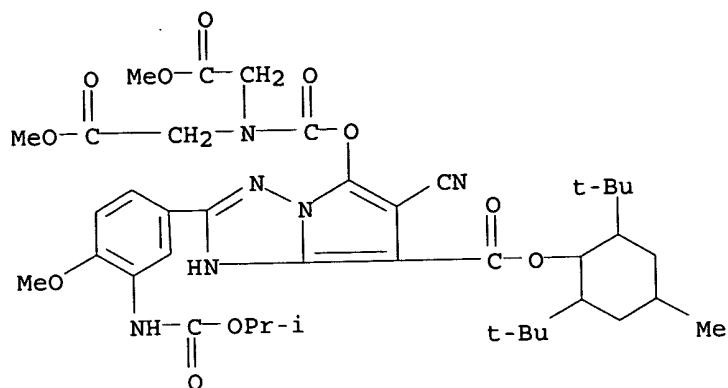


RN 364379-31-7 CAPLUS

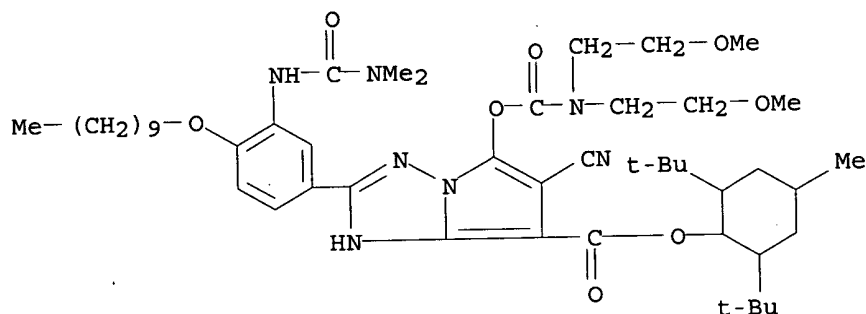
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-methoxy-3-[(1-methylethoxy)carbonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-

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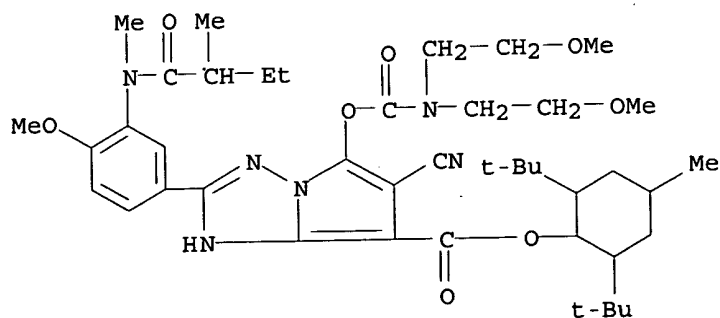
methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-32-8 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[4-(decyloxy)-3-[[dimethylamino]carbonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



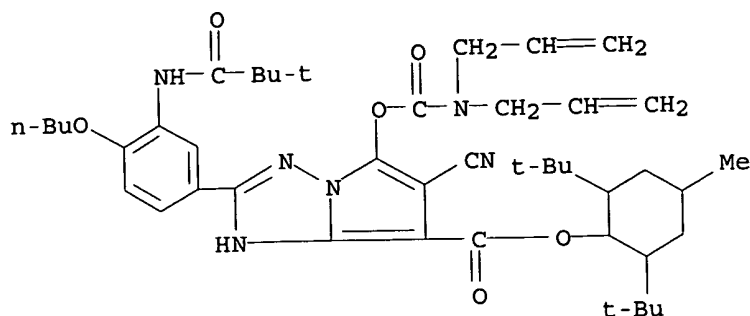
RN 364379-33-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[4-methoxy-3-[methyl(2-methyl-1-oxobutyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-34-0 CAPLUS

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CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[4-butoxy-3-[(2,2-dimethyl-1-oxopropyl)amino]phenyl]-6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:617235 CAPLUS

DOCUMENT NUMBER: 135:187663

TITLE: Silver halide color photographic material characterized by cyan coupler and aniline-type compound

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

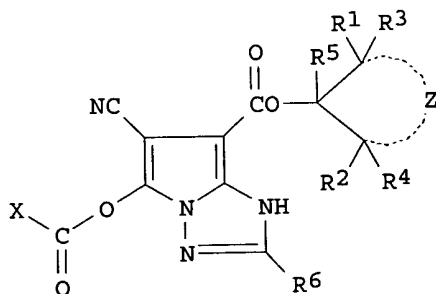
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

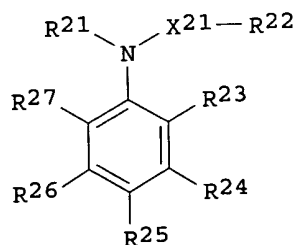
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001228588	A2	20010824	JP 2000-36411	20000215

OTHER SOURCE(S): MARPAT 135:187663

GI



I



II

AB The material involves .gtoreq.1 photog. emulsion layer contg. .gtoreq.1 of cyan coupler I (R1-R6, X = H, substituent; Z = nonmetallic at. group for forming a ring which may be substituted) and .gtoreq.1 of aniline-type compd. II (R21 = aliph. group; R22 = aliph. or arom. group; R23-R27 = H, substituent; X21 = carbonyl, sulfonyl; R21-R22 may form 5-, 6-, or

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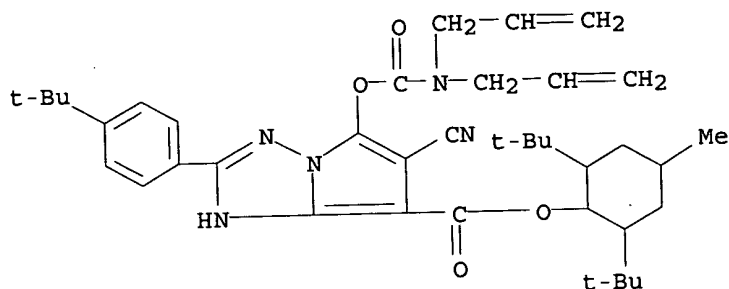
7-membered N-contg. heterocycle; R21-R27 may be divalent group, except aliph. oxycarbonyl, forming polymer) on a support. The material shows good color reproducibility and storage stability.

IT 184947-09-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silver halide photog. emulsion characterized by cyan coupler and aniline-type additive)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

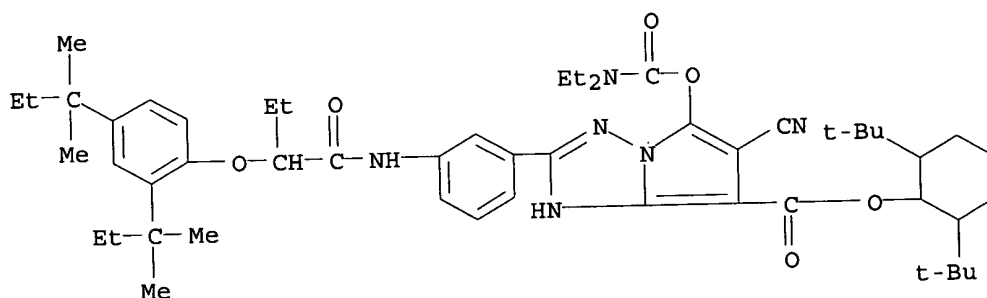


IT 200137-20-8

RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide photog. emulsion characterized by cyan coupler and aniline-type additive)

RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:615687 CAPLUS

DOCUMENT NUMBER: 135:187656

TITLE: Silver halide color photographic material, discoloration inhibitor, and inhibitor for association of colorants

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.

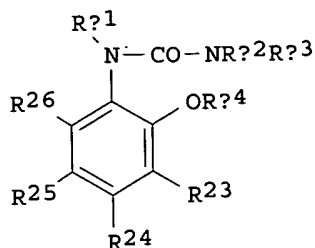
CODEN: JKXXAF

DOCUMENT TYPE: Patent

09963584

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001228590	A2	20010824	JP 2000-36458	20000215
OTHER SOURCE(S):		MARPAT 135:187656		
GI				



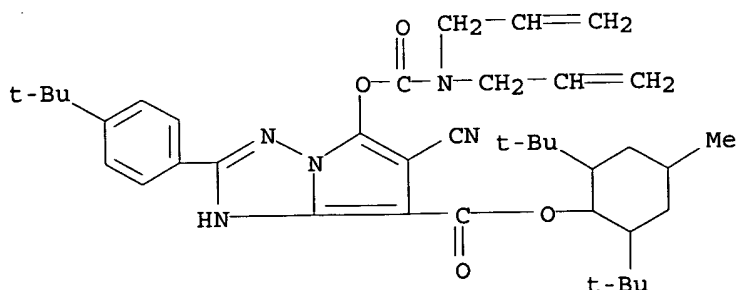
AB The photog. material involves .gtoreq.1 layer contg. arom. amide I
 (Ra1-Ra3 = H, aliph. group; Ra4 = aliph. group; R23-R25 = H, substituent;
 Ra2-Ra3 may form 5-, 6-, or 6-membered N-contg. heterocycle; Ra1-Ra3,
 R23-R27 may be divalent group forming polymer), as the discoloration
 inhibitor or assocn. inhibitor, optionally assocd. with a cyan coupler on
 a substrate. The material shows good color reproducibility and
 lightfastness.

IT 184947-09-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (cyan coupler; silver halide color photog. material contg.
 discoloration inhibitor or inhibitor for assocn. of colorants and)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-
 dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-,
 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



IT 200137-20-8

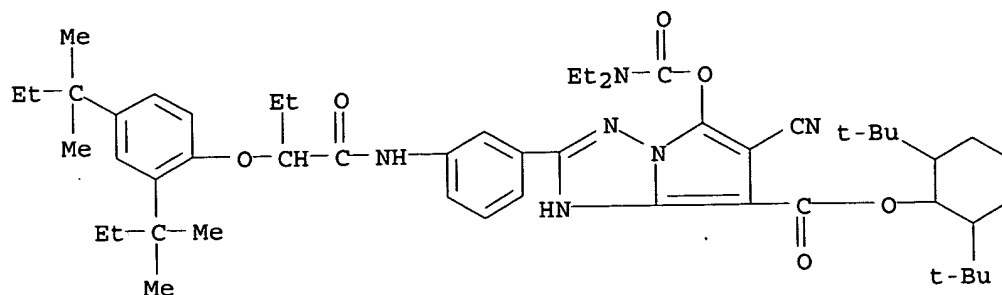
RL: TEM (Technical or engineered material use); USES (Uses)
 (cyan coupler; silver halide color photog. material contg.
 discoloration inhibitor or inhibitor for assocn. of colorants and)

RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-
 dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-
 [[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester

09963584

(9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:603685 CAPLUS

DOCUMENT NUMBER: 135:172950

TITLE: Silver halide color photographic material, color fading-resistant agent, and dye-association inhibitor

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

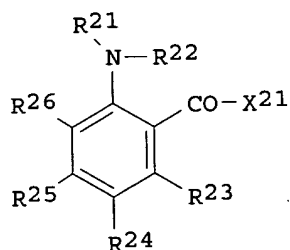
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

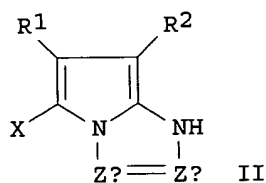
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001226608	A2	20010821	JP 2000-36443	20000215

OTHER SOURCE(S): MARPAT 135:172950

GI



I



II

AB The invention relates to a color photog. material which contains a compd. represented by I (R21 = H, aliph.; R22 = acyl, aliph. sulfonyl, arylsulfonyl, carbamoyl; X21 = aliph. oxy, amino, aliph. amino, arylamino; R2326 = H, substituent) as a color fading-resistant agent or as a dye-assocn. inhibitor. The photog. material contains a cyan coupler represented by II (Za, Zb = -C(R3):, -N:; R1, R2 = electron withdrawing group having Hammett substituent const. σ_p of ≥ 0.20 ; R3 = H, substituent; X = H, group capable of cleaving upon coupling with oxidized color developing agent) together with the above compd. in the same layer. The photog. material shows improved color reprodn., color fading-resistance, and color d.

IT 184947-09-9P

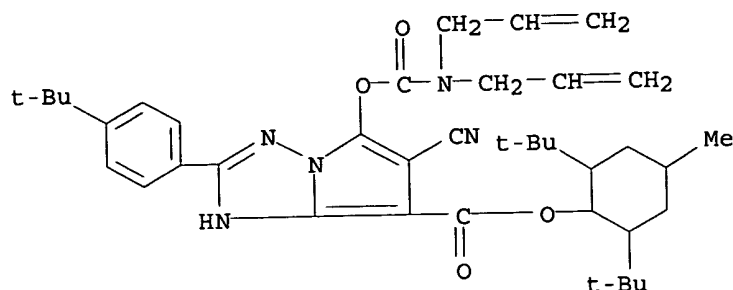
RL: SPN (Synthetic preparation); PREP (Preparation)

09963584

(cyan coupler prepn.; color photog. material contg. color fading-resistant agent or dye-associ. inhibitor together with cyan coupler to improve color reproducibility and color fading-resistance)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

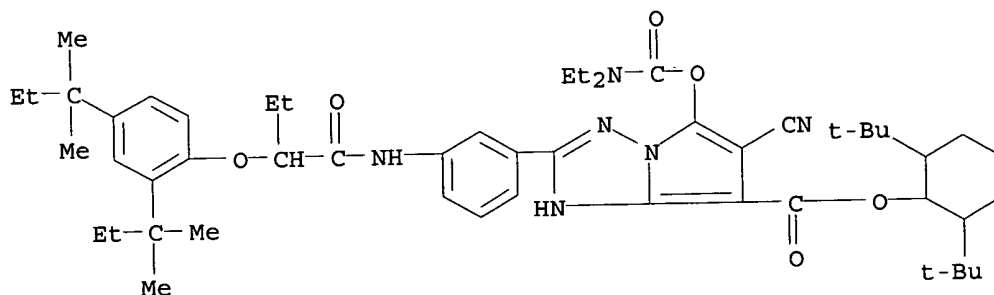


IT 200137-20-8

RL: DEV (Device component use); USES (Uses)
(cyan coupler; color photog. material contg. color fading-resistant agent or dye-associ. inhibitor together with cyan coupler to improve color reproducibility and color fading-resistance)

RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:441258 CAPLUS

DOCUMENT NUMBER: 135:53457

TITLE: Silver halide color photographic material containing pyrrolo-triazole cyan coupler

INVENTOR(S): Tateishi, Keiichi; Mikoshiba, Takashi; Matsuda, Naoto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

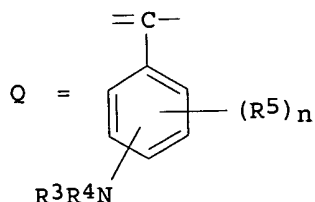
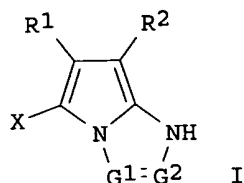
PATENT NO.

KIND DATE

APPLICATION NO. DATE

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JP 2001163887	A2	20010619	JP 2000-282530	20000918
US 6399291	B1	20020604	US 2000-675213	20000929
PRIORITY APPLN. INFO.:			JP 1999-279838	A 19990930
OTHER SOURCE(S):			MARPAT 135:53457	
GI				



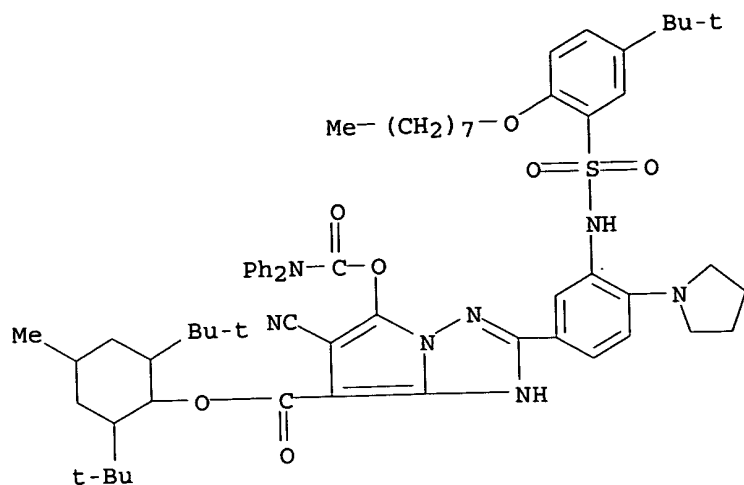
AB The material contains a coupler I [X = H, substituent to be released on coupling with an arom. primary amine color developer; R1, R2 = electron attractive group with Hammett's σ_p value ≥ 0.20 ; $\sigma_p(R1) + \sigma_p(R2) \geq 0.65$; G1, G2 = N, Q (R3 = each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heterocycle; R4 = H, substituent linked with C; R3 and R4 may form a ring; R5 = substituent; n = 0-4); ≥ 1 of G1-2 = N; I may form a dimer or (co)polymer] in ≥ 1 layer on a support. The pyrrolotriazole compd. I (X = H, halo, C1-32 alkyloxy, C6-32 aryloxy, C1-32 alkylthio, C6-32 arylthio, C2-32 heterocyclic thio, C2-32 alkyloxycarbonyloxy, C7-32 aryloxycarbonyloxy, C1-32 carbamoyloxy, C3-32 heterocyclic carbonyloxy, 5- or 6-membered C2-32 N-contg. heterocycle linking to a coupling active site with N; R1, R2 = electron attractive group with Hammett's σ_p value ≥ 0.20 ; $\sigma_p(R1) + \sigma_p(R2) \geq 0.65$; G1, G2 = N, Q) is also claimed. The material shows improved color reprodn., colored image stability, and processing stability.

IT 344941-82-8

RL: DEV (Device component use); USES (Uses)
(silver halide color photog. material contg. pyrrolotriazole cyan coupler)

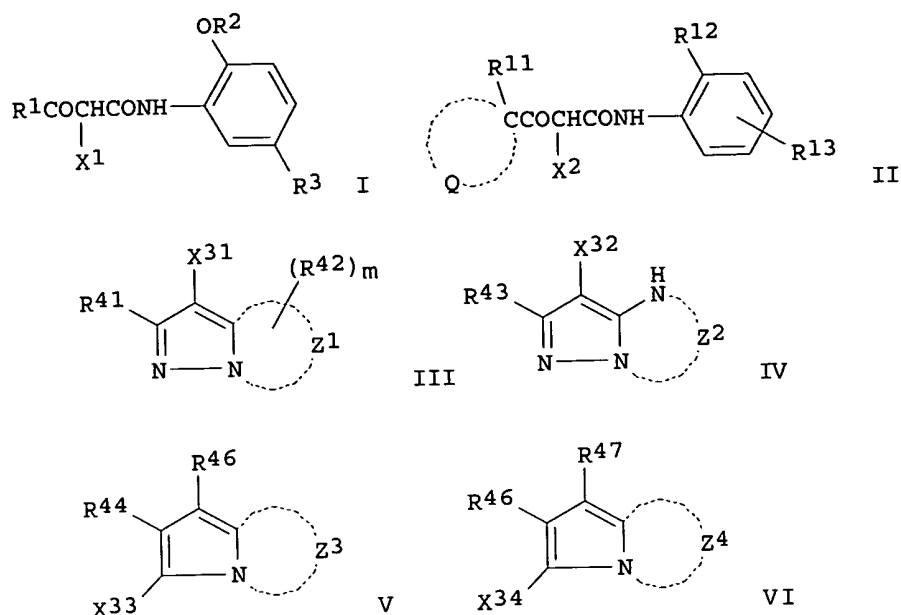
RN 344941-82-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[[[5-(1,1-dimethylethyl)-2-(octyloxy)phenyl]sulfonyl]amino]-4-(1-pyrrolidinyl)phenyl]-5-[[[(diphenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 14 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:769585 CAPLUS
DOCUMENT NUMBER: 133:342412
TITLE: Silver halide photographic material using reflective
support coated with polymer layer
Yamazaki, Isatada; Nakamura, Takeshi
INVENTOR(S): Konica Co., Japan
PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 57 pp.
SOURCE: CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000305218	A2	20001102	JP 1999-116541	19990423
OTHER SOURCE(S) :	MARPAT 133:342412			
GI				



AB In the material comprising a reflective support composed of a base paper coated with resin layers on both sides and .gtoreq.1 Ag halide emulsion layer and .gtoreq.1 non-photosensitive hydrophilic colloidal layer, the resin layer on the emulsion layer side contains a biaxially drawn polymer layer (thickness 10-30 .mu.m) contg. .gtoreq.10 wt.% white pigments. In the material, (1) the total gelatin in the emulsion layer and the colloidal layer may be .ltoreq.6.5 g/m², (2) .gtoreq.1 of the emulsion layer may contain .gtoreq.1 yellow coupler selected from I, II, and R21R22NCOCX3HCONHR23 (R1-2 = alkyl, cycloalkyl, aryl; R3 = H, halo, acylamino; X1-3 = releasing group by the reaction with developer oxide; R11 = monovalent substituent other than H; Q = nonmetal atoms to form 3-5-membered hydrocarbon ring or a heterocycle contg. N, S, O, or P; R12 = H, halo, alkyl, alkoxy, aryloxy, amino; R13 = substituent; R21-22 = alkyl, aryl, heterocycle; R23 = aryl, heterocycle; R21 and R22 may form a N-contg. heterocycle), or (3) .gtoreq.1 of the emulsion layer may contain .gtoreq.1 cyan coupler selected from III, IV, V, and VI (R41, R43, R46-47 = H, substituent; R42 = substituent; when m = 0, R41 = substituent with Hammett's .sigma.p .gtoreq.0.20; when m = .gtoreq.1, .gtoreq.1 of R41 and R42 is substituent with Hammett's .sigma.p .gtoreq.0.20; Z1, Z3 = nonmetal atoms to form 5-membered N-contg. heterocycle; Z2 = nonmetal atoms to form 6-membered heterocycle which may be substituted or condensed with benzene ring; Z4 = nonmetal atoms to form 6-membered heterocycle; R44-45 = substituent with .sigma.p .gtoreq.0.20; X31-34 = releasing group by coupling reaction with developer oxide). The material shows good color reproducibility, pressure resistance, cutting property, and suited for rapid processing.

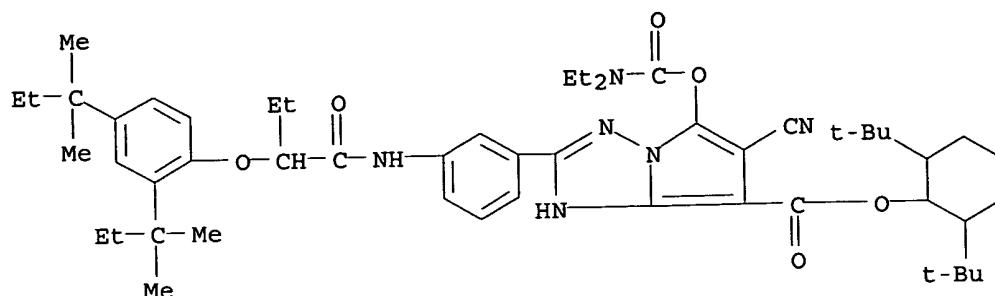
IT 200137-20-8

RL: DEV (Device component use); USES (Uses)

(photog paper contg. amide compd. yellow coupler and azole compd. cyan coupler)

RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:624780 CAPLUS

DOCUMENT NUMBER: 133:215420

TITLE: Silver halide color photographic material with high sharpness

INVENTOR(S): Takata, Kiyoto; Kimura, Keizo; Takahashi, Osamu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 98 pp.

CODEN: JKXXAF

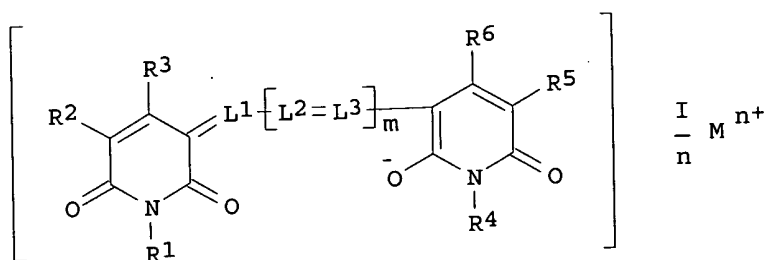
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000241936	A2	20000908	JP 1999-358018	19991216
PRIORITY APPLN. INFO.:			JP 1998-363003	A 19981221
OTHER SOURCE(S):			MARPAT 133:215420	
GI				



AB The title photog. material, possessing .gtoreq.3 photosensitive hydrophilic colloid layers contg. each of yellow, magenta, and cyan dye-forming couplers and Ag halide emulsion grains different in color sensitivity from each other and .gtoreq.1 non-photosensitive hydrophilic colloid layers on a transparent support, contains a compd. I (R1, R4 = H, aliph., arom. or heterocyclic group, NR7R8, NR7CONR7R8, NR8COR9, NR8SO2R9; R2, R5 = H, aliph., arom. or heterocyclic group, CN, sulfo, NR7R8, NR8COR9, NR8SO2R9, NR7CONR7R8, CO2R7, CONR7R8, COR9, SO2R9, SO2NR7R8; R3, R6 = OR7, CO2R7, COR9, CONR7R8, NR7R8, NR8COR9, NR8SO2R9, NR7CONR7R8, SO2R9, SO2NR7R8, CN; R7, R8 = H, aliph. or arom. group; R9 = aliph. or arom. group, R7 and R8 or R8 and R9 may link each other to form a 5- or 6-membered ring; L1-3 = methine; m = 0-2; Mn+ = cation with n valence; n = 1-3) in 1 of these layers and a solid fine particle dispersion of a dye DXy (D = chromophore-contg. group; X = dissocg. H or a compd. having dissocg. H; y = 1-7) in .gtoreq.1 of the non-photosensitive layers and the

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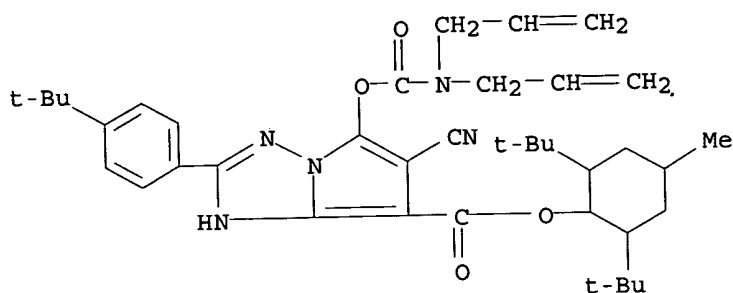
pH value of the coating of the material is 4.6-6.4. The material shows high sharpness and environmental stability upon exposure and is capable of simplifying the processing.

IT 184947-09-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(triazole deriv. photog. cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 16 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:448363 CAPLUS

DOCUMENT NUMBER: 133:81523

TITLE: Silver halide color cinephotographic film with high chromaticity

INVENTOR(S): Sakai, Shuichi; Takahashi, Osamu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 85 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

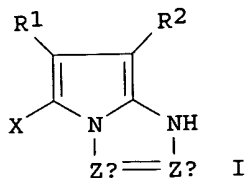
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000187310	A2	20000704	JP 1998-363002	19981221

OTHER SOURCE(S): MARPAT 133:81523

GI



AB The material involves a support and (A) .gtoreq.1 light-insensitive hydrophilic layer placed between the support and a photosensitive Ag halide layer nearest to the support and (B) color-forming emulsion layers in which .gtoreq.1 cyan color-forming emulsion layer contains a cyan

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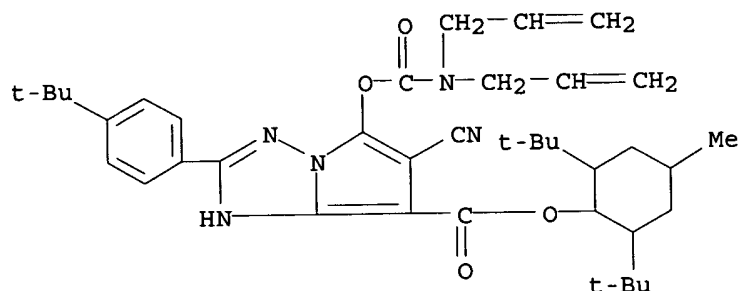
coupler I (Za, Zb = CR₃·, N.tplbond.; R₁, R₂ = electron-withdrawing group with Hammett's .sigma.p value .gtoreq.20; R₃ = H, substituent; X = H, group released in coupling reaction with an arom. primary amine color developer). The film shows high chromaticity, improved durability, and both sharpness and white background.

IT 184947-09-9

RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide color cinephotog. film contg. specified cyan coupler with high chromaticity)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 17 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:313515 CAPLUS

DOCUMENT NUMBER: 132:341117

TITLE: Silver halide photographic material with improved processing stability

INVENTOR(S): Taniguchi, Makoto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

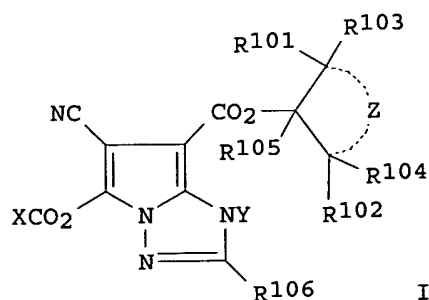
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000131812	A2	20000512	JP 1998-321491	19981027

OTHER SOURCE(S): MARPAT 132:341117

GI



AB The title photog. material contains .gtoreq.1 compd. R2ZR4:CR1Y(:O)R3 (Y, Z = C; R1, R2 = OH, amino, alkylamino, anilino, heterocyclic amino, acylamino, alkylsulfonylamino, arylsulfonylamino, heterocyclic sulfinylamino, alkoxy-carbonylamino, carbamoylamino, sulfamoylamino, SH, alkylthio, arylthio, heterocyclic thio; R3 = H, group linking to Y by C, O or N atom; R4 = H, group linking to Z by C, O or N atom, R3 and R4 may form a ring) and .gtoreq.1 coupler of the formula I (R101, R102 = alkyl, aryl; R103-105 = H, alkyl, aryl; Z = nonmetal atoms required to form a satd. ring; R106 = substituent; X = heterocyclic group, substituted amino, aryl; Y = H, group releasing upon color development). The material is independent of the variation of conditions in processing and the cyan coupler forms images stably even if the pH of developing bath rises upon development.

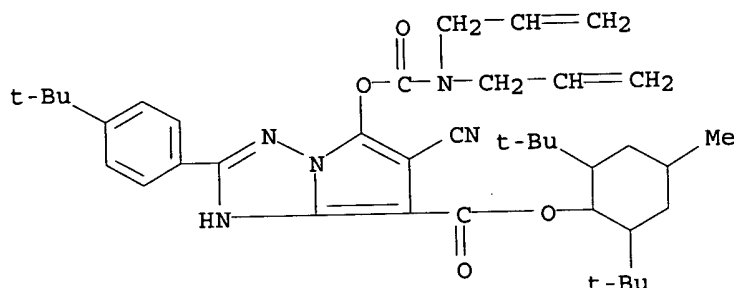
IT 184947-09-9

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(photog. paper contg. enone compd. and pyrrolotriazole cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:813969 CAPLUS

DOCUMENT NUMBER: 132:57058

TITLE: Silver halide color photographic material

INVENTOR(S): Mizukawa, Hiroki; Naruse, Hideaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11352647	A2	19991224	JP 1998-156185	19980604

AB The title photog. material contains .gtoreq.1 of magenta couplers having .gtoreq.1 4- equiv. magenta coupler residue and .gtoreq.1 2-equiv one in their mols., and/or yellow couplers having .gtoreq.1 4-equiv yellow coupler residue and .gtoreq.1 2-equiv one in their mols., and/or cyan couplers having .gtoreq.1 4-equiv cyan coupler residue and .gtoreq.1 2-equiv one in their mols. The material shows high coloring properties in both heat development and wet development processes.

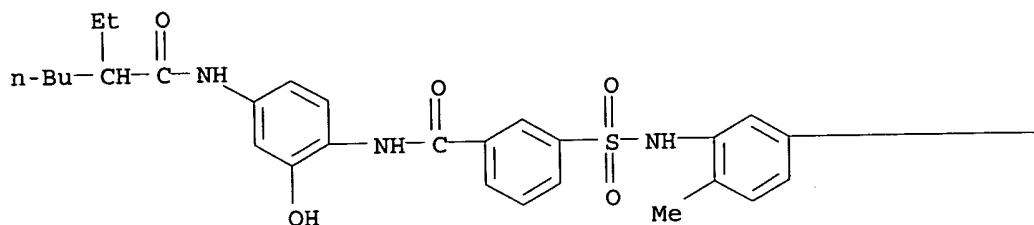
IT 252898-85-4

09963584

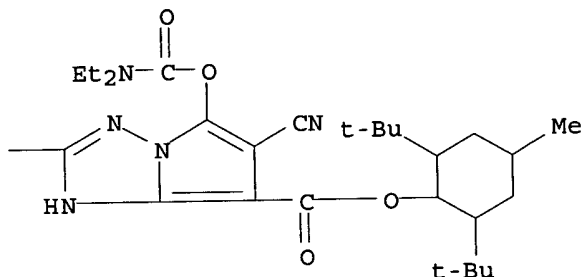
RL: DEV (Device component use); USES (Uses)
(silver halide color photog. material contg. specific couplers for good coloring properties in both heat and wet development processes)

RN 252898-85-4 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
[[[(diethylamino)carbonyloxy]-2-[3-[[[3-[[[4-[(2-ethyl-1-oxohexyl)amino]-2-
hydroxyphenyl]amino]carbonyl]phenyl]sulfonyl]amino]-4-methylphenyl]-,
2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L4 ANSWER 19 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:787757 CAPLUS
DOCUMENT NUMBER: 132:28628
TITLE: Silver halide color photographic material using novel
pyrrolo-triazole-type cyan coupler
INVENTOR(S): Yoshioka, Yasuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11344793	A2	19991214	JP 1998-169303	19980602
OTHER SOURCE(S): MARPAT 132:28628				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB In the title photog. material possessing .gtoreq.1 yellow-coloring, .gtoreq.1 magenta-coloring, and .gtoreq.1 cyan-coloring photosensitive Ag halide emulsion layers and .gtoreq.1 non-photosensitive hydrophilic colloid layer on a support, .gtoreq.1 of the cyan-coloring layers contains (a) .gtoreq.1 cyan dye-forming coupler I [Za, Zb = :CR3, :N, either one is :N and the other :CR3; R1, R2 = electron-attracting group with Hammett's substituent const. .sigma.p .gtoreq.0.20, the sum of the .sigma.p values of R1 and R2 is .gtoreq.0.65; R3 = H, substituent; X = H, group releasing upon coupling with an oxidized arom. primary amine color developing agent; when R1-3 and X are divalent groups, the compd. may link to form a (co)polymer], (b) a compd. II, and (c) a compd. III or IV [Ra1 and Ra2 are H, alkyl or aryl; Ra3, Ra4 = H, alkyl, aryl; Ra5 = aryl, the total C no. of Ra1-a5 is .gtoreq.14; X1, X2 = OH, alkoxy, NHR4 (R4 = H, alkyl, aryl, acyl, sulfonyl, carbamoyl, sulfamoyl, alkoxy-carbonyl); Y1, Y2 = substituent; n, m = 0-4]. The material provides a high quality color image without color mixing.

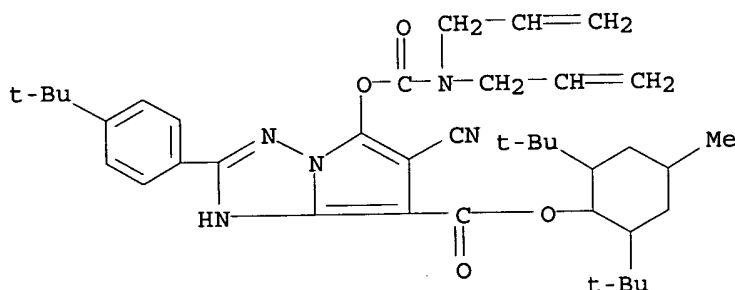
IT 184947-09-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(photog. film contg. pyrrolotriazole deriv. photog. cyan coupler, phenidone, and hydroquinone deriv.)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:640202 CAPLUS

DOCUMENT NUMBER: 131:279219

TITLE: Silver halide color photographic material containing bisurethane or bisureido compound

INVENTOR(S): Mikoshiba, Takashi; Soejima, Susumu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

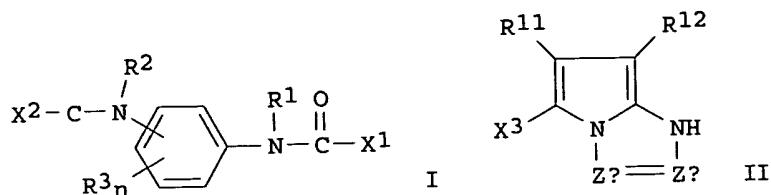
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11271940	A2	19991008	JP 1998-71020	19980319
OTHER SOURCE(S): MARPAT 131:279219				
GI				



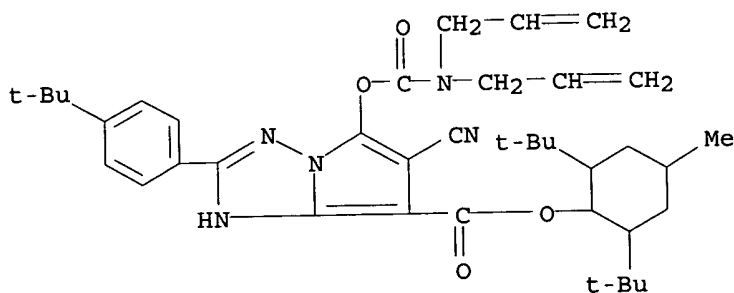
AB The title photog. material, possessing .gtoreq.1 Ag halide emulsion layer on a support, contains .gtoreq.1 a compd. m-X2CONR2C6H4NR1COX1 (R1, R2 = H, aliph. group, aryl; X1, X2 = OR4, NR5R6; R4-6 = H, aliph. group, aryl, R1, R5, and R6 are not alkyl at the same time). The material may contain .gtoreq.1 a compd. I (R1, R2, R4, X1, and X2 are the same as defined for the above formula, resp.; R3 = H, substituent; R5, R6 = H, aliph. group, aryl; n = 0-4; this compd. has no ability of reacting with an oxidized color developing agent to form a dye) and .gtoreq.1 a cyan coupler II [Za, Zb = :CR13, :N, either one is :N and the other :CR13; R11, R12 = electron-attracting group with Hammett's substituent const. .sigma.p .gtoreq.0.20, the sum of .sigma.p values of R11 and R12 is .gtoreq.0.65; R13 = H, substituent; X3 = H, group releasing upon coupling with an oxidized arom. primary amine developing agent, R11-13 and X3 may be divalent groups which link to a polymer higher than dimer or polymer chain to form a (co)polymer]. The material shows improved coloring properties and storage stability and provides a high color quality image with improved lightfastness and without cyan stain.

IT 184947-09-9 200137-20-8 200137-23-1
245440-03-3

RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide color photog. material contg. bisurethane or bisureido compd. and pyrolotriazole cyan coupler)

RN 184947-09-9 CAPLUS

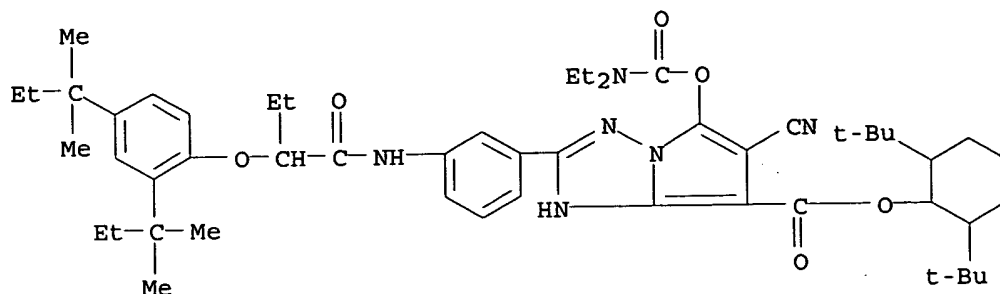
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



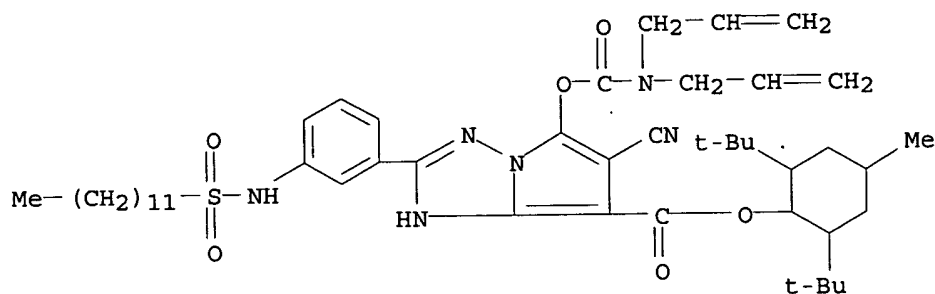
RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)

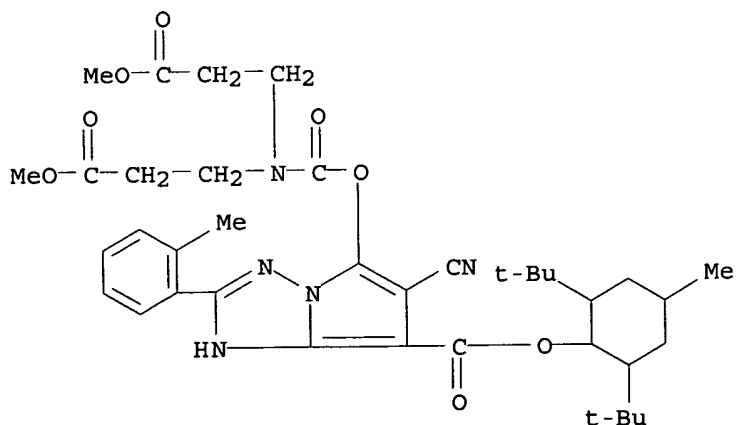
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RN 200137-23-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 245440-03-3 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-methoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:617983 CAPLUS
 DOCUMENT NUMBER: 131:264719
 TITLE: Color image formation and desilvering processing composition containing guanidine compound
 INVENTOR(S): Deguchi, Yasuaki

09963584

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 82 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11265046	A2	19990928	JP 1998-84894	19980316

OTHER SOURCE(S): MARPAT 131:264719

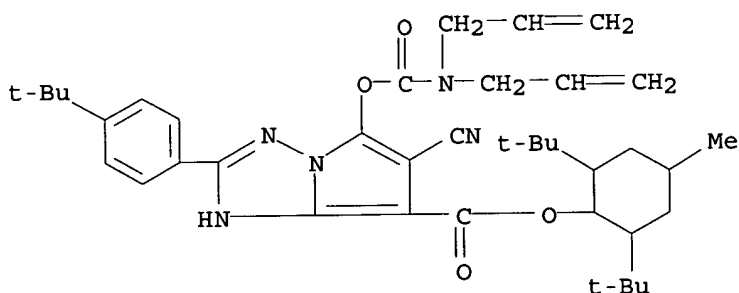
AB In the title process in which a silver halide color photog. material, possessing .gtoreq.1 yellow-coloring, .gtoreq.1 magenta-coloring, and .gtoreq.1 cyan-coloring Ag halide emulsion layers and .gtoreq.1 non-photosensitive hydrophilic colloid layer on a support, is subjected to development, desilvering, washing and/or stabilizing, and drying steps following imagewise exposure, .gtoreq.1 of the desilvering and washing and/or stabilizing steps is carried out in the presence of a compd. $\text{NH}_2\text{C}(\text{:NH})\text{NR}_1\text{R}_2$ ($\text{R}_1, \text{R}_2 = \text{H, alkyl, aralkyl}$, the total C no. of R_1 and R_2 is 3-8, $\text{R}_1 \cdot \text{noteq.} \text{R}_2 \cdot \text{noteq.} \text{H}$, R_1 and R_2 may link each other to form a ring). A desilvering processing compn. contg. the above compd. is also claimed. Residual developer is well removed by using the compd. and photog. material gives images with improved color reproducibility without stains.

IT 184947-09-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(photog. cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:583340 CAPLUS

DOCUMENT NUMBER: 131:235677

TITLE: Phenidone compound and silver halide color photographic paper containing the same

INVENTOR(S): Mikoshiba, Takashi; Yoshioka, Yasuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

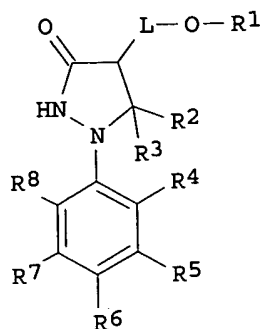
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

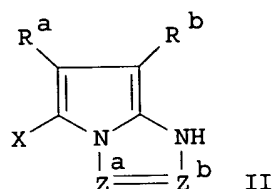
PATENT INFORMATION:

09963584

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11246785	A2	19990914	JP 1998-49809	19980302
OTHER SOURCE(S):		MARPAT 131:235677		
GI				



I



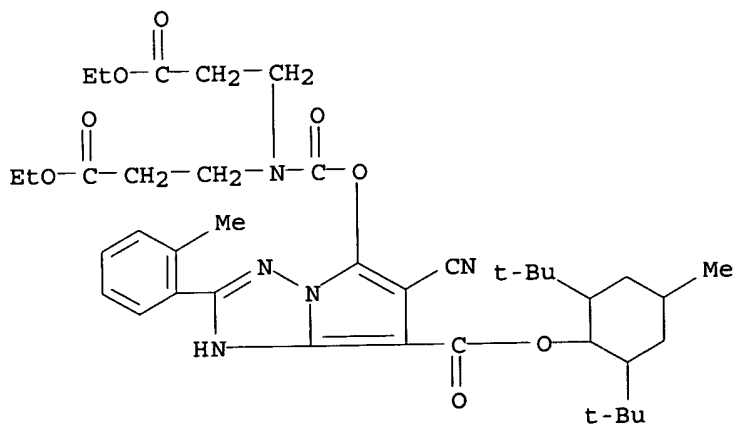
II

AB The Ag halide color photog. paper contains the phenidone compd. represented by a general formula I (L = alkylene; R1 = alkyl, aryl; R2, R3 = H, alkyl, aryl; R4-8 = H, substituent) and a cyan coupler represented by a general formula II (Za, Zb = -C(Rc):, -N:; Ra, Rb = electron withdrawing group having Hammett substituent const. $\Delta\rho \geq 0.20$; Rc = H, substituent; X = H, coupling group). The photog. paper shows excellent color reprodn. and improved storage stability.

IT 200110-96-9 200137-23-1 243986-78-9
243986-82-5

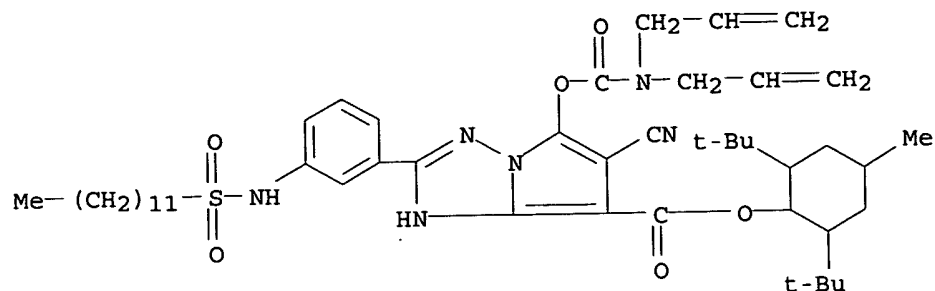
RL: DEV (Device component use); USES (Uses)
(cyan coupler in silver halide color photog. paper)

RN 200110-96-9 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-ethoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

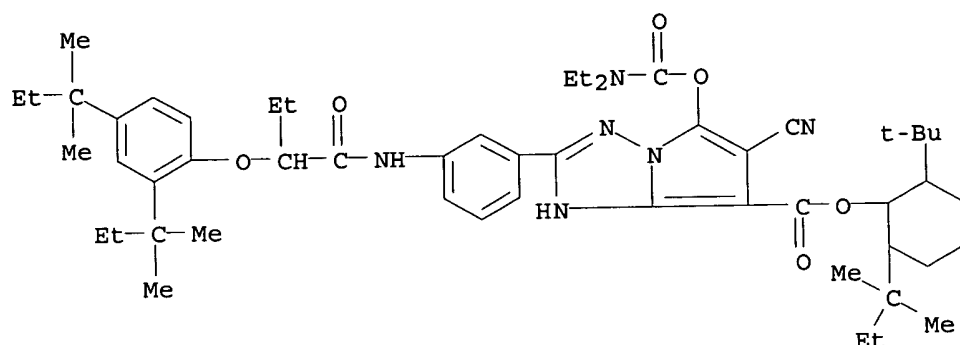


RN 200137-23-1 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

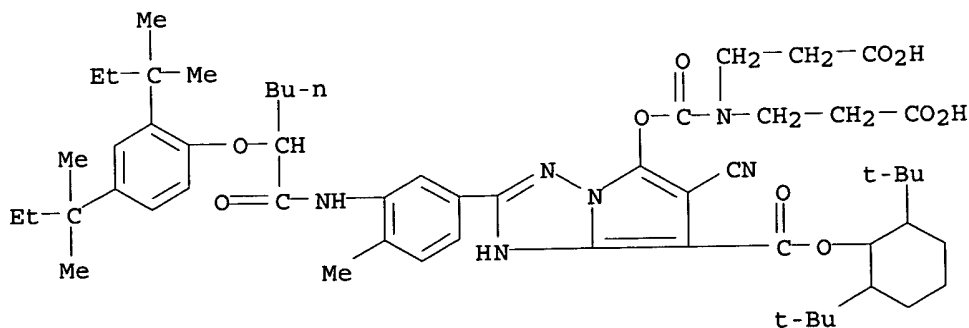
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RN 243986-78-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2-(1,1-dimethylethyl)-6-(1,1-dimethylpropyl)cyclohexyl ester (9CI) (CA INDEX NAME)



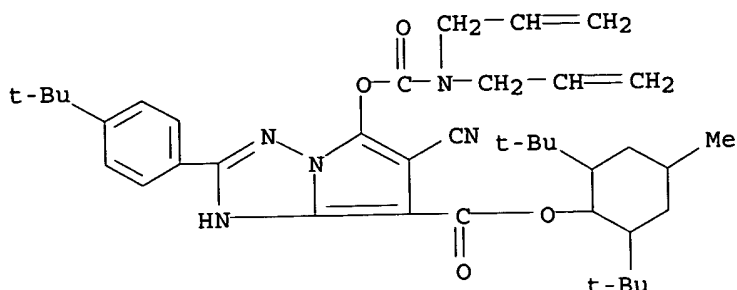
RN 243986-82-5 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-carboxyethyl)amino]carbonyl]oxy]-2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxohexyl]amino]-4-methylphenyl]-6-cyano-, 7-[2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



IT 184947-09-9P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (cyan coupler in silver halide color photog. paper)

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RN 184947-09-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



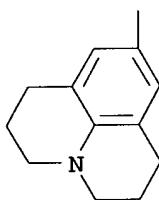
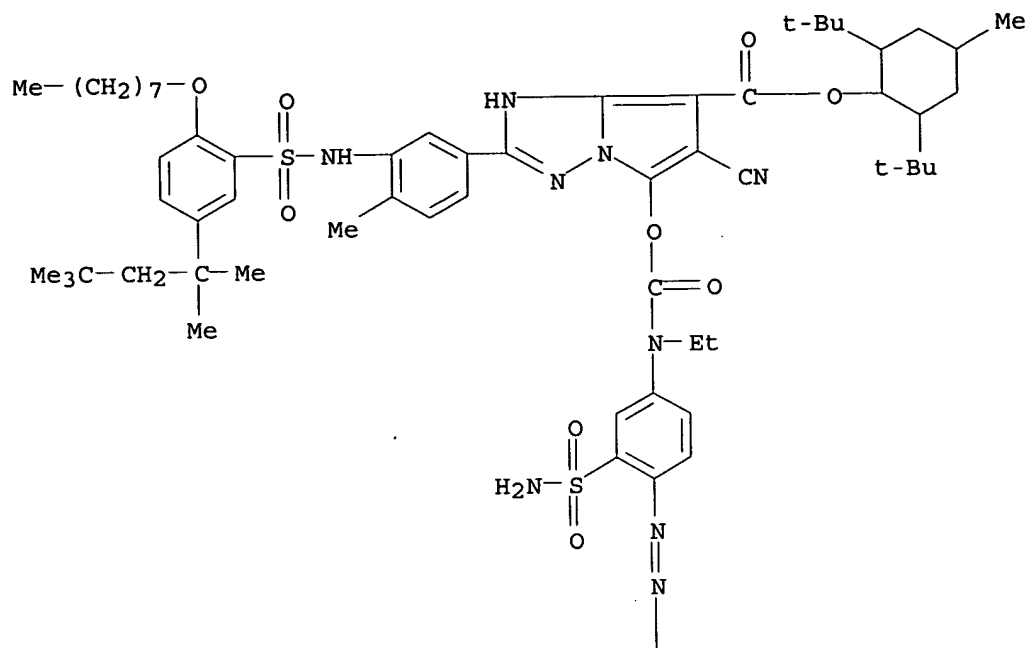
L4 ANSWER 23 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:545194 CAPLUS
 DOCUMENT NUMBER: 131:206897
 TITLE: Color photographic film, manufacture of color filter using the same, and color filter for display
 INVENTOR(S): Mizukawa, Hiroki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 73 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11231481	A2	19990827	JP 1998-28943	19980210

AB The color photog. film contains a yellow-colored cyan coupler Q1(TIME)n-L1m-(YDYE) [Q1 = cyan dye forming coupler residue; TIME = timing group; L1 = divalent connection group; YDYE = yellow dye residue; n, m = 0-3] or A1-N:N-R1 [A1 = cyan dye forming coupler residue; R1 = aryl, heterocycle], a magenta-colored cyan coupler Q2-(TIME)n-L2m-(MDYE) [Q2 = cyan dye forming coupler residue; TIME = timing group; L2 = divalent connection group; MDYE = magenta dye residue; m, n = 0-3] or A2-N:N-R2 [A2 = cyan dye forming coupler residue; R2 = aryl, heterocycle], and a yellow-colored magenta coupler Q3-(TIME)n-L3m-(YDYE) [Q3 = magenta dye forming coupler residue; TIME = timing group; L3 = divalent connection group; YDYE = yellow dye residue; n, m = 0-3] or A3-N:N-R3 [A3 = magenta dye forming coupler residue; R3 = aryl, heterocycle]. The excellent color filter is obtained easily by using the above colored couplers.

IT 240812-14-0
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
 (magenta-colored cyan coupler in color photog. film for manufg. color filter of display)

RN 240812-14-0 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-(aminosulfonyl)-4-[(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-9-yl)azo]phenyl]ethylamino]carbonyl]oxy]-6-cyano-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]aminophenyl]-, 2,4-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



IT 240812-10-6

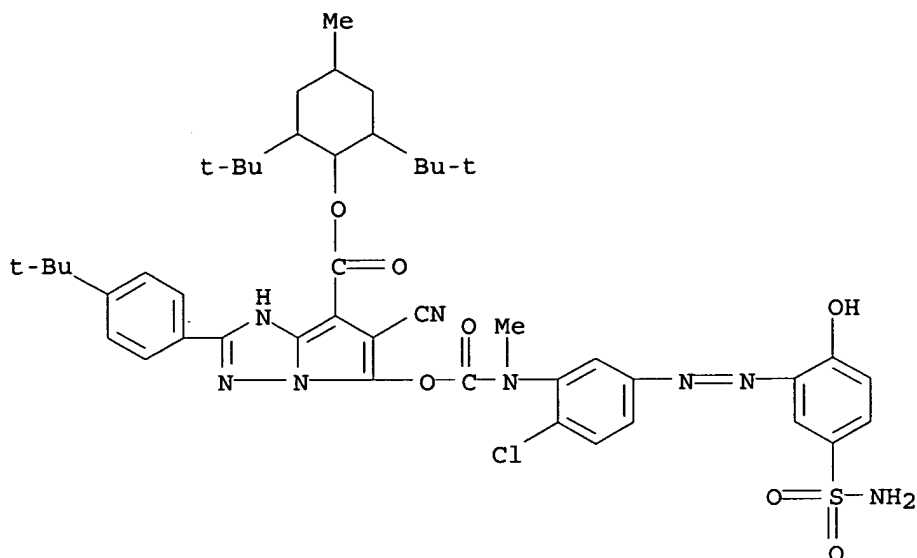
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)

(yellow-colored cyan coupler in color photog. film for manufg. color
filter of display)

RN 240812-10-6 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[5-[[5-(aminosulfonyl)-2-hydroxyphenyl]azo]-2-chlorophenyl]methylamino]carbonyl]oxy]-6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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L4 ANSWER 24 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:522503 CAPLUS
Correction of: 1999:157098

DOCUMENT NUMBER: 131:136730
Correction of: 130:229947

TITLE: Color photographic material containing low-pKa cyan coupler and pyrazolidone derivative and its development

INVENTOR(S): Soijima, Susumu; Yoshioka, Yasuhiro; Takahashi, Osamu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

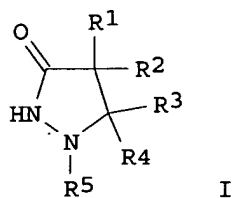
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11065050	A2	19990305	JP 1997-243371	19970825

GI



AB The material contains a cyan coupler of pKa .ltoreq.8.7 in an emulsion layer and a pyrazolidone deriv. I (R1-4 = alkyl, aryl; R5 = aryl; C sum of R1-5 .gtoreq.13) in a yellow- and/or magenta-coloring emulsion layer. The development process utilizes digital scanning exposure. The material is suited for rapid processing and provides stain-free images.

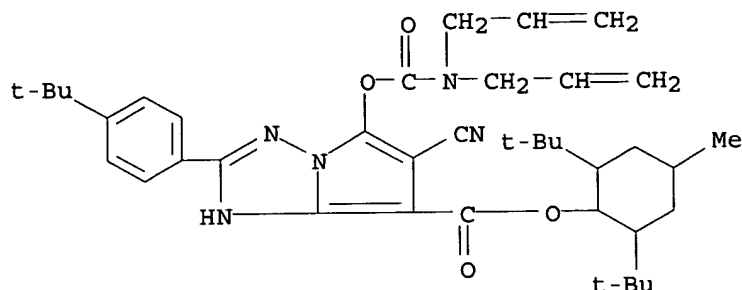
IT 184947-09-9P

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RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(red-sensitive emulsion layer; photog. emulsion contg. low-pKa cyan coupler and pyrazolidone deriv. for rapid development by digital scanning)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 25 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:482107 CAPLUS

DOCUMENT NUMBER: 131:122889

TITLE: Silver halide color photographic material

INVENTOR(S): Mikoshiba, Hisashi; Soejima, Shin; Shimada, Yasuhiro; Takahashi, Osamu; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 174 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 932079	A1	19990728	EP 1999-101049	19990122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11258748	A2	19990924	JP 1998-80368	19980312
JP 11327101	A2	19991126	JP 1998-288708	19980928
JP 11327100	A2	19991126	JP 1999-53622	19990302

PRIORITY APPLN. INFO.:
JP 1998-25208 19980123
JP 1998-76596 19980310
JP 1998-78512 19980312
JP 1998-80368 19980312
JP 1998-288708 19980928

OTHER SOURCE(S): MARPAT 131:122889

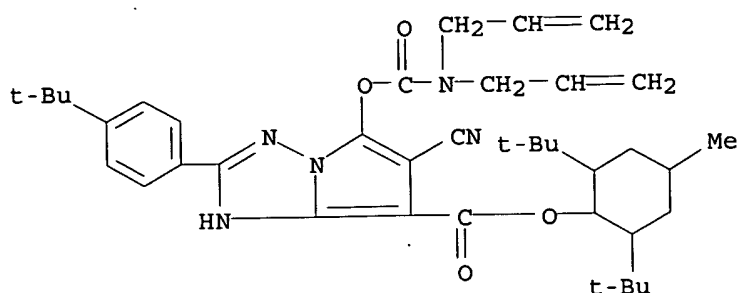
AB There is disclosed a silver halide color photog. material comprising a compd. of formula $R_1C(R_7)_n[C(R_2)(R_3)OCOC(R_4)=CR_5R_6]_{3-n}$ wherein R_1 is a hydrogen atom, an alkyl group having 1 to 30 carbon atoms, an alkenyl group having 2 to 30 carbon atoms, or an aryl group; R_2 , R_3 , R_4 , R_5 , R_6 , and R_7 each independently represents a hydrogen atom or an alkyl group having 1 to 30 carbon atoms; and n is 0 or 1. The color photog. material provide cyan images of excellent fastness.

IT 184947-09-9 200137-20-8 232947-56-7

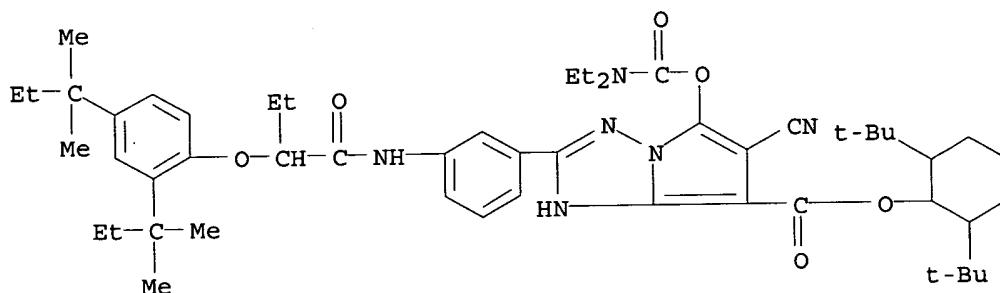
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RL: TEM (Technical or engineered material use); USES (Uses)
(color photog. emulsions for improved cyan dye image formation contg.
vinyl compds. and)

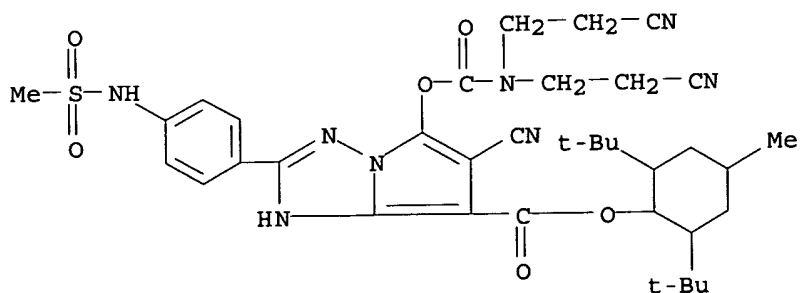
RN 184947-09-9 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 200137-20-8 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 232947-56-7 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

9

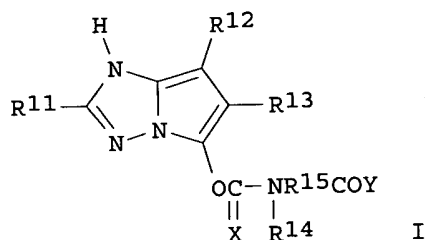
THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:468755 CAPLUS
 DOCUMENT NUMBER: 131:108839
 TITLE: Color photographic material with improved processing stability
 INVENTOR(S): Bergthaller, Peter
 PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany
 SOURCE: Ger. Offen., 20 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19801352	A1	19990722	DE 1998-19801352	19980116
US 6150079	A	20001121	US 1999-227469	19990108
JP 11258747	A2	19990924	JP 1999-6265	19990113
			DE 1998-19801352 A	19980116

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 131:108839
 GI



AB In the color photog. material comprising a support, at least 1 blue-sensitive, yellow coupler-contg. Ag halide emulsion layer, at least 1 green-sensitive, magenta coupler-contg. Ag halide emulsion layer, at least 1 red-sensitive, cyan coupler-contg. Ag halide emulsion layer, as well as further light-insensitive layers, the photog. material contains at least 1 cyan coupler represented by a general formula I (R11 = alkyl, aryl, acylamino, alkylcarbamoyl, arylcarbamoyl, heterocyclyl; R12 = electron acceptor group; R13 = electron acceptor group; R14 = alkyl, aryl; R15 = divalent bridge with 2-4 bridging atoms; X = O, NSO2R21; R21 = ballast group; Y = splitting group). The material shows improved processing stability.

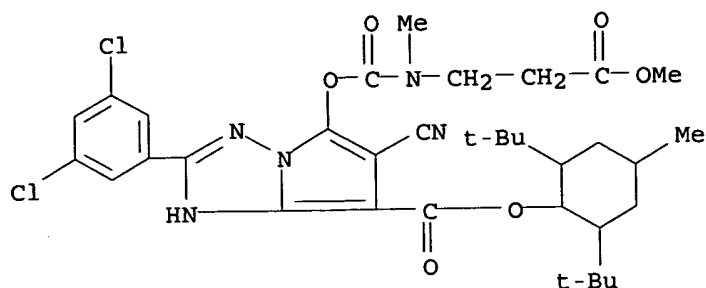
IT 231962-68-8P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (cyan coupler in color photog. material with improved processing stability)

RN 231962-68-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(3,5-dichlorophenyl)-5-[[[(3-methoxy-3-oxopropyl)methylamino]carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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L4 ANSWER 27 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:394789 CAPLUS

DOCUMENT NUMBER: 131:80710

TITLE: Processing of color photographic material containing pyrrolotriazole cyan coupler with ferric dicarboxylate complex bleaching agent to prevent stain formation

INVENTOR(S): Seki, Hiroyuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

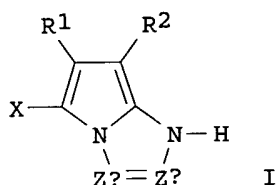
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11167189	A2	19990622	JP 1997-331945	19971202

OTHER SOURCE(S): MARPAT 131:80710

GI



AB The method comprises imagewise exposure, color development, and bleaching in which (1) the bleaching soln. contains (a) a ferric complex derived from dicarboxyalkylamines, alkylenediamine disuccinates, and/or alkylenediamine monosuccinates and (b) another dicarboxylic compd. and (2) the photog. material to be processed, having yellow-, magenta-, and cyan-dye-forming layers and a nonphotog. hydrophilic colloid layer on the support, contains a pyrrolotriazole coupler I (R1, R2, = H or substituent; one of Z_a and Z_b is N and the other is methine). The method has good color developability, prevents the generation of edge staining, and improves whiteness of the background.

IT 201931-72-8

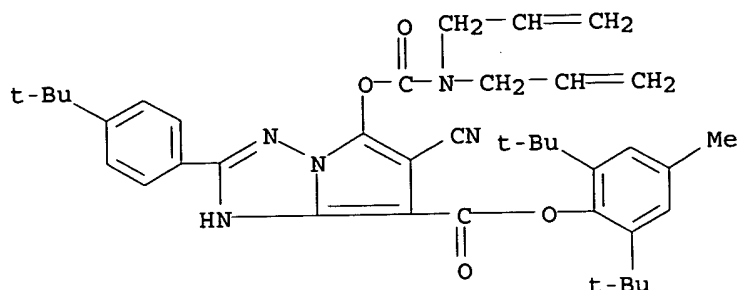
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(cyan coupler; processing of color photog. material contg. pyrrolotriazole cyan coupler with ferric dicarboxylate complex bleaching agent to prevent stain formation)

RN 201931-72-8 CAPLUS

09963584

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylphenyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:322525 CAPLUS

DOCUMENT NUMBER: 131:25704

TITLE: Method for processing silver halide color photographic material containing pyrrolotriazole coupler with low pH bleach-fixing agent to reduce cyan stain

INVENTOR(S): Ishikawa, Takatoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

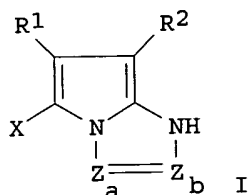
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11133562	A2	19990521	JP 1997-292946	19971024

OTHER SOURCE(S): MARPAT 131:25704

GI



AB In the method for processing Ag halide color photog. material comprising imagewise exposure, chromogenic development, desilvering, and washing and/or stabilizing, the bleach-fixing soln. shows the pH 3.5-5.5, preferably contg. RSO₂M (R = alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl; M = H, alkali metal, ammonium, quaternary amine), and the photog. material contains a pyrrolotriazole cyan coupler I (Za, Zb = CR₃; N; Za .noteq. Zb; R₁, R₂ = electron-withdrawing group with the Hammett's .sigma.p .gtoreq.0.20 and the sum of .sigma.p .gtoreq.0.65; R₃ = H, substituent; X = H, leaving group by coupling with the oxidized developing agent; I may take dimer or polymer) in the cyan-developing layer,. The photog. material used in the above processing may contain a pyrazolinone

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deriv. Though I provides a cyan dye with an outstanding purity, it is accompanied by cyan stain, which is reduced by the low pH bleach-fixing, consequently, the combination improves color image quality of the processed material.

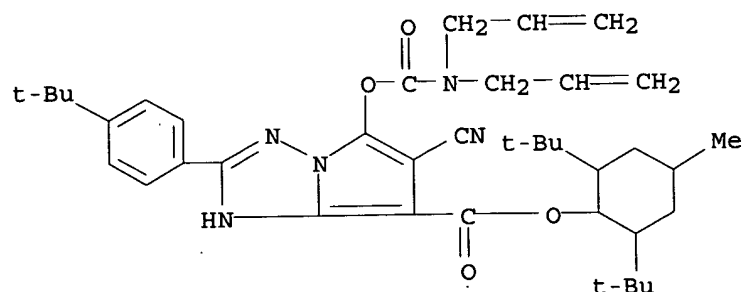
IT 184947-09-9

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(cyan coupler; method for processing silver halide color photog. material contg. pyrrolotriazole coupler with low pH bleach-fixing agent to reduce cyan stain)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 29 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:322524 CAPLUS

DOCUMENT NUMBER: 131:25703

TITLE: Processing of silver halide color photographic material containing pyrrolotriazole coupler with sulfinate-containing developer

INVENTOR(S): Ishikawa, Takatoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

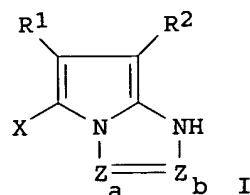
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11133561	A2	19990521	JP 1997-298729	19971030
OTHER SOURCE(S): MARPAT 131:25703				

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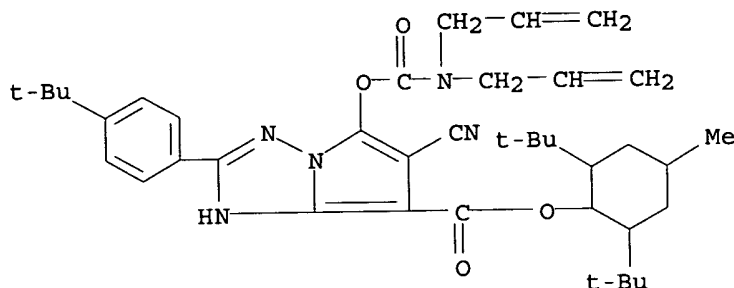
AB In the method for processing Ag halide color photog. material comprising imagewise exposure, chromogenic development, desilvering, and washing and/or stabilizing, the developer soln. contains RSO₂M (R = alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl; M = H, alkali metal, ammonium, quaternary amine) and the photog. material contains a pyrrolotriazole cyan coupler I (Za, Zb = CR₃-, N-; Za .noteq. Zb; R₁, R₂ = electron-withdrawing group with the Hammett's .sigma.p .gtoreq.0.20 and the sum of .sigma.p .gtoreq.0.65; R₃ = H, substituent; X = H, leaving group by coupling with the oxidized developing agent; I may take dimer or polymer) in the cyan-developing layer. Though the coupler I gives a cyan dye with an outstanding purity, it is accompanied by cyan stain, which is reduced by the addn. of RSO₂M, consequently, the combination improves color image quality of the processed material.

IT 184947-09-9

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(cyan coupler; processing of silver halide color photog. material contg. pyrrolotriazole coupler with sulfinate-contg. developer)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 30 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:277517 CAPLUS

DOCUMENT NUMBER: 130:344994

TITLE: Rapid development for color photographic material containing pyrrolotriazole cyan coupler

INVENTOR(S): Momura, Hideaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

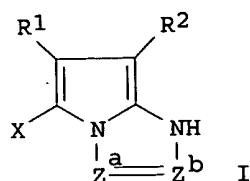
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11119400	A2	19990430	JP 1997-287107	19971020
OTHER SOURCE(S): MARPAT 130:344994				
GI				

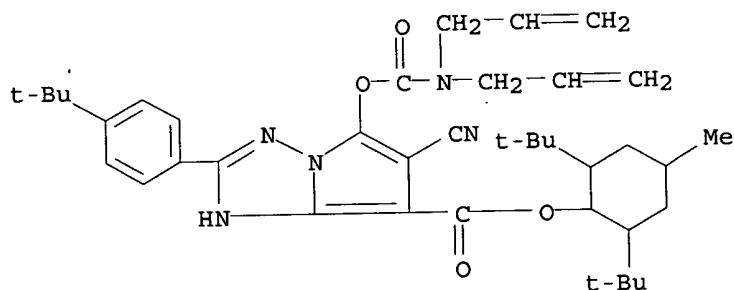
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AB A photog. process where an exposed, developed, desilverized, washed, and fixed color photog. material contg. a pyrrolotriazole-type cyan coupler I (Z1, Z2 = :CR3 and :N, alternatively; R1, R2 = electron-withdrawing group with Hammett's σ_p ≥ 0.20 and with the sum of σ_p ≥ 0.65 ; R3 = H, substituent; X = H, group released upon reaction with oxidized developer) in an emulsion layer, is contacted with a heating roller and then dried by hot air at mass rate ≥ 1000 kg/m²h. The hot air is blown from nozzles. The process inhibits concn. increase of developed dye images.

IT 184947-09-9
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(cyan coupler; forced drying for color photog. material contg. pyrrolotriazole cyan coupler for inhibition of dye fading)

RN 184947-09-9 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

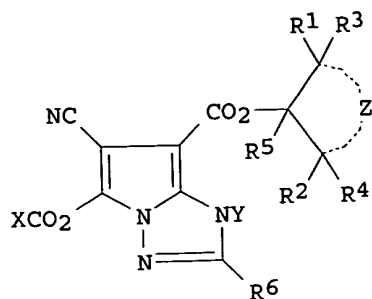


L4 ANSWER 31 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:260840 CAPLUS
DOCUMENT NUMBER: 130:330537
TITLE: Silver halide color photographic material containing pyrroloazole-type coupler and image formation
INVENTOR(S): Yokozawa, Akihito
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11109578	A2	19990423	JP 1997-282822	19970930
OTHER SOURCE(S): MARPAT 130:330537				

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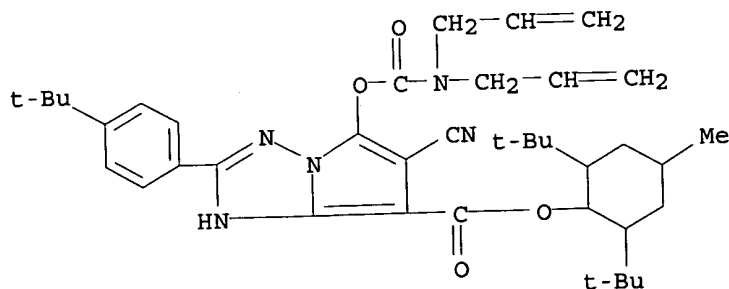
AB The Ag halide photog. material comprises a support having thereon .gtoreq.1 yellow, magenta, or cyan coupler-contg. emulsion layer, in which the cyan coupler-contg. emulsion layer contains a pyrroloazole-type cyan coupler I (R1, R2 = alkyl, aryl; R3, R4, R5 = H, alkyl, aryl; Z = non-metallic atoms required to form a satd. ring; R6 = substituent; X = heterocycle, substituted amino, aryl; Y = H, releasing group in color development), Ag halide tabular grains with av. aspect ratio .gtoreq.3 contg. .gtoreq.95 mol% AgCl assocd. with 0.1-5.0 mol% (vs. Ag) AgBr and/or 0.1-2.0 mol% (vs. Ag) AgI on the surface of the .ltoreq.20 vol.% of the grains. An image is formed by scanning exposure and color development of the obtained Ag halide material. The material shows improved rapid processability, processing stability before and after running processing, and color reprodn.

IT 184947-09-9

RL: TEM (Technical or engineered material use); USES (Uses)
(pyrroloazole-type cyan coupler for rapid processing with improved color reprodn.)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 32 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:260789 CAPLUS

DOCUMENT NUMBER: 130:344973

TITLE: Silver halide photographic material for color filter formation

INVENTOR(S): Mizukawa, Hiroki

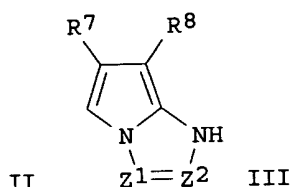
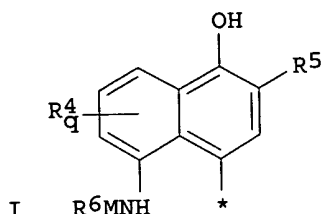
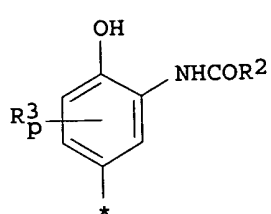
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

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CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11109123	A2	19990423	JP 1997-267112	19970930
OTHER SOURCE(S):		MARPAT 130:344973		
GI				



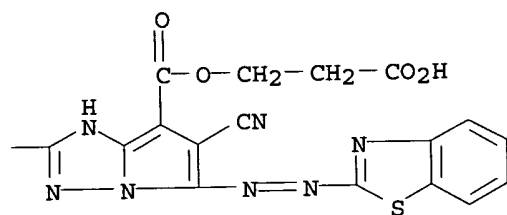
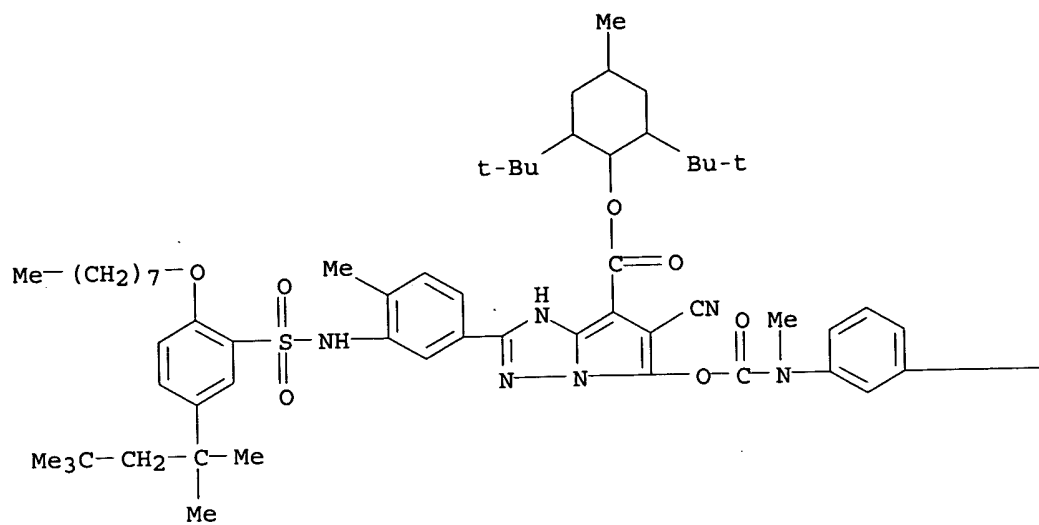
AB The material contains a red dye- or a magenta dye-releasing coupler having a formula Q1(TIME)nLmDY or a red or magenta colored coupler having a formula Q2N:NR1 [Q1, 2 = coupler residue I, II, or III; TIME = timing group that releases (TIME)n-1LmDY after eliminating Q1 or timing group that releases (TIME)n-2LmDY after being eliminated from TIME; R1 = aryl, heterocyclic; n, m = 0, 1, 2, 3; L = divalent group; DY = red or magenta dye residue; R2 = alkyl, cycloalkyl, alkenyl, aryl, heterocyclic, alkoxy, cycloalkyloxy, alkenyloxy, aryloxy, alkylamino, cycloalkylamino, alkenylamino, arylamino, heterocyclic amino; R3, 4 = substituent; p = 0-3 integer; R5, 7, 8 = H, substituent; q = 0-4 integer; M = CO, SO2; R6 = alkyl, cycloalkyl, aryl, heterocyclic, alkoxy, cycloalkyloxy, aryloxy, heterocycloxy, alkylamino, cycloalkylamino, arylamino, heterocyclic amino; Z1, 2 = N, CR9; R9 = H, alkyl, cycloalkyl, alkenyl, aryl, heterocyclic]. The method involves exposing the material, color-developing, and desilverizing to obtain the filter having a blue, green, and red pixel pattern. The filter contains the coupler. The filter with light transmittance, excellent heat and light fastness, and thin film thickness is manufd. using the material.

IT 223734-81-4 224045-18-5 224045-35-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (Ag halide photog. material for color filter contg. red or magenta coupler)

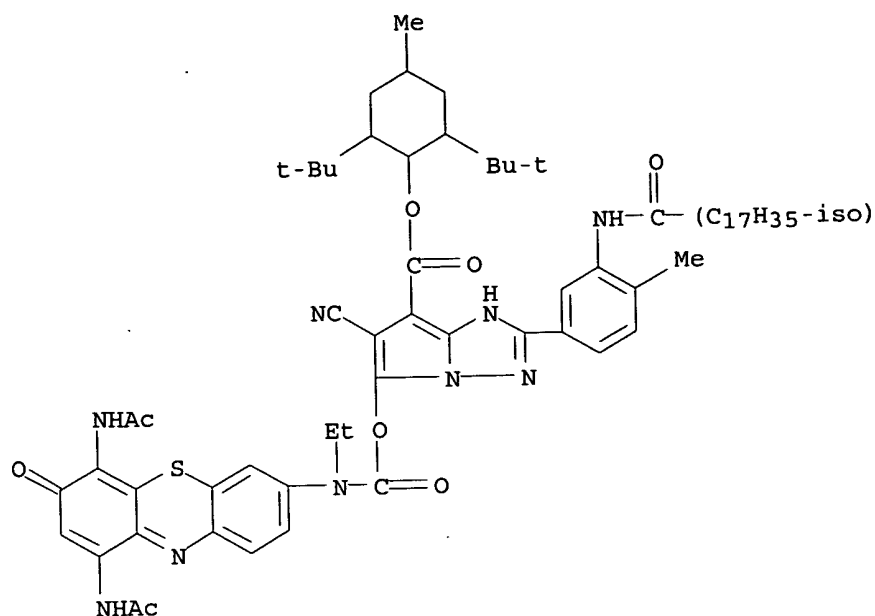
RN 223734-81-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-(2-benzothiazolylazo)-2-[3-[[[7-[[[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl]oxy]carbonyl]-6-cyano-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-1H-pyrrolo[1,2-b][1,2,4]triazol-5-yl]oxy]carbonyl]methylamino]phenyl]-6-cyano-, 2-carboxyethyl ester (9CI) (CA INDEX NAME)

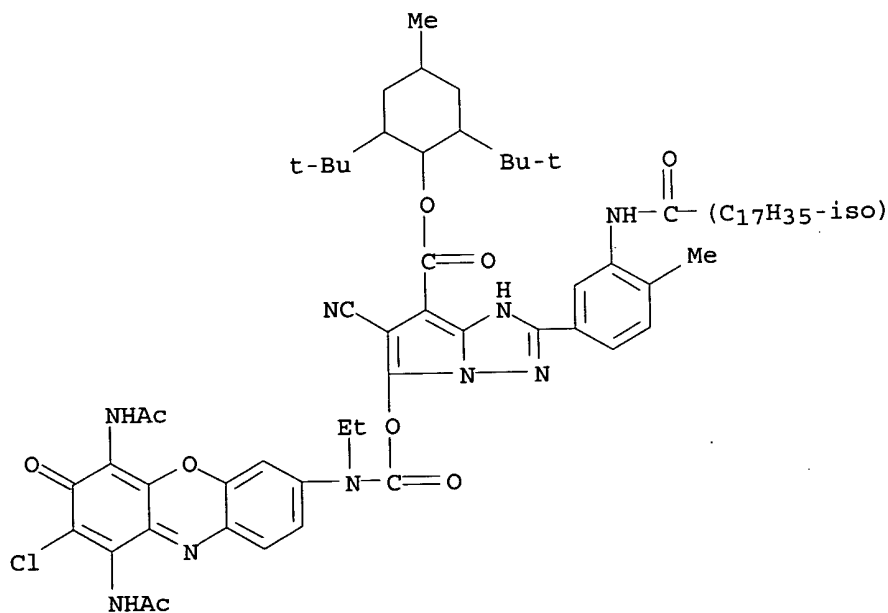


RN	224045-18-5	CAPLUS
CN	1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[1,4-bis(acetylamino)-3-oxo-3H-phenothiazin-7-yl]ethylamino]carbonyl]oxy]-6-cyano-2-[4-methyl-3-[(1-oxoisooctadecyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)	

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RN 224045-35-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[1,4-bis(acetylamino)-2-chloro-3-oxo-3H-phenoxazin-7-yl]ethylamino]carbonyloxy]-6-cyano-2-[4-methyl-3-[(1-oxoisooctadecyl)aminophenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



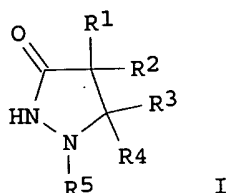
L4 ANSWER 33 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:157098 CAPLUS
 DOCUMENT NUMBER: 130:229947
 TITLE: Color photographic material containing low-pKa cyan coupler and pyrazolidone derivative and its

09963584

INVENTOR(S): development
 Soijima, Susumu; Yoshioka, Yasuhiro; Takahashi, Osamu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11065050 A2		19990305	JP 1997-243371	19970825

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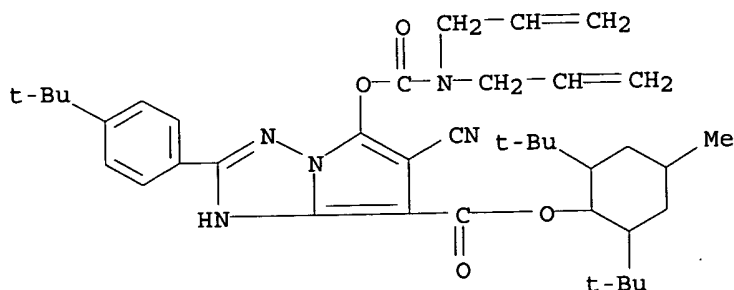
AB The material contains a cyan coupler of pKa .ltoreq.8.7 in an emulsion layer and a pyrazolidone deriv. I (R1-4 = alkyl, aryl; R5 = aryl; C sum of R1-5 .gtoreq.13) in a yellow- and/or magenta-coloring emulsion layer. The development process utilizes digital scanning exposure. The material is suited for rapid processing and provides stain-free images.

IT 184947-09-9P

RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (red-sensitive emulsion layer; photog. emulsion contg. low-pKa cyan coupler and pyrazolidone deriv. for rapid development by digital scanning)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 34 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:78733 CAPLUS

DOCUMENT NUMBER: 130:160627

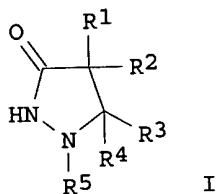
TITLE: Silver halide color photographic material containing 3-pyrazolidone derivative and cyan coupler with low

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INVENTOR(S): pKa to improve developability
Yoshioka, Yasuhiro; Soejima, Susumu; Takahashi, Osamu;
Saito, Naoki; Mikoshiba, Takashi; Morigaki, Masakazu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11030843	A2	19990202	JP 1997-197992	19970709
US 2001004512	A1	20010621	US 1998-110271	19980706
			JP 1997-197992 A	19970709

PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 130:160627
GI



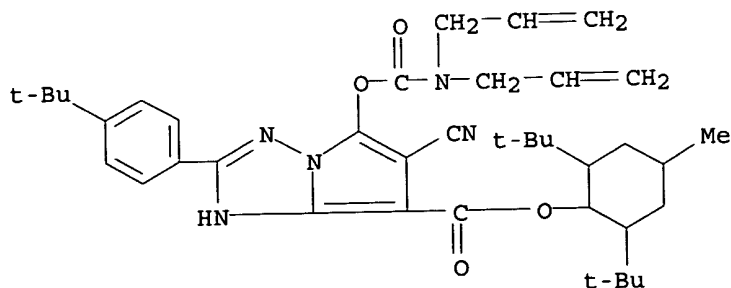
AB The photog. material has .gtoreq.1 cyan dye-developing layer contg. a cyan coupler with the pKa .ltoreq.8.7, and .gtoreq.1 hydrophilic colloid layer contg. a 3-pyrazolidone deriv. I (R1, R2 = H, alkyl, aryl; R3, R4 = H, alkyl, aryl; R5 = aryl; sum of C atoms in R1-R5 >13). Preferable cyan coupler is pyrrolotriazole derivs. The combination of the coupler and 3-pyrazolidone improves rapid developability and dye developability to keep a consistent processing quality.

IT 184947-09-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(cyan coupler; silver halide color photog. material contg. 3-pyrazolidone deriv. and cyan coupler with low pKa to improve developability)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

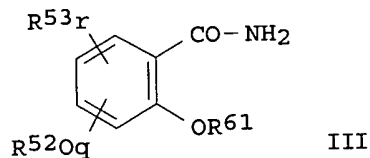
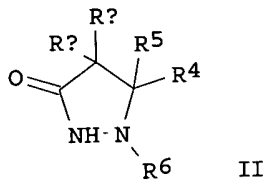
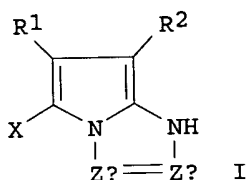


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L4 ANSWER 35 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:72073 CAPLUS
 DOCUMENT NUMBER: 130:175238
 TITLE: Color photographic material containing
 pyrrolotriazole-type cyan coupler for pure and
 lightfast image
 INVENTOR(S): Takahashi, Osamu; Yoshioka, Yasuhiro; Soejima, Susumu;
 Shimada, Yasuhiro; Morigaki, Masakazu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 66 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

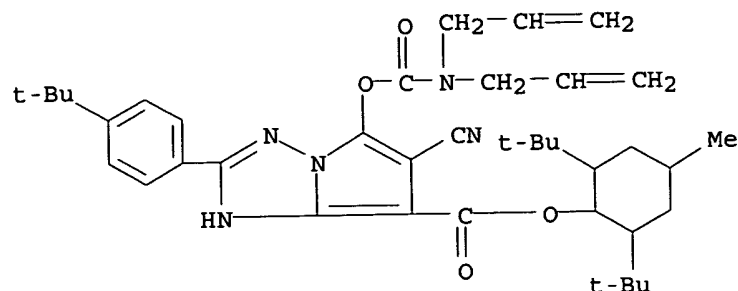
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11024218	A2	19990129	JP 1997-181488	19970707
US 6103460	A	20000815	US 1998-110849	19980707
PRIORITY APPLN. INFO.:			JP 1997-181488	A 19970707

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- AB The material includes an emulsion layer contg. a pyrrolotriazole deriv. I (R1, R2 = electron-withdrawing group with Hammett's σ_p ≥ 0.65 ; Za, Zb = N, CR3; X = H, a group leaving upon coupling with an oxidized developer of an arom. primary amine; R3 = H, substituents), a phenidone deriv. II (Ra, Rb = aryl, C2-30 alkyl; R4-6 = aryl), and a benzamide deriv. III [R51, R52 = alkyl, aryl, acyl, (alkoxy) carbamoyl; R53 = halo, alkyl, aryl, acyl, sulfamoyl, alkoxycarbamoyl; q = 0-2; r = 0-4].
- IT 184947-09-9P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cyan coupler; color photog. emulsion contg. pyrrolotriazole coupler, phenidone deriv., and benzamide deriv. for pure and lightfast image)
- RN 184947-09-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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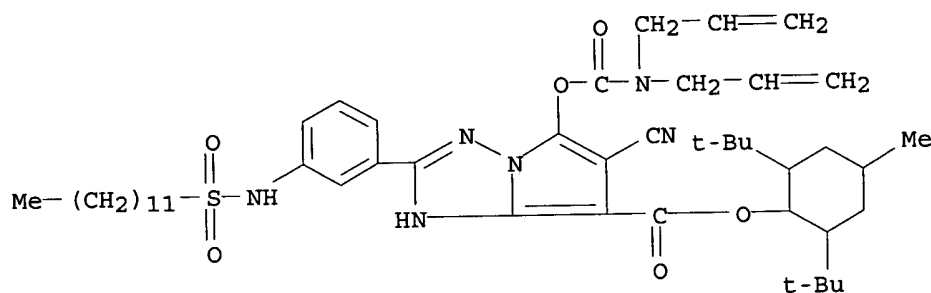


IT 200137-23-1

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; color photog. emulsion contg. pyrrolotriazole coupler,
phenidone deriv., and benzamide deriv. for pure and lightfast image)

RN 200137-23-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 36 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:72072 CAPLUS

DOCUMENT NUMBER: 130:175237

TITLE: Color photographic material containing pyrrolotriazole
cyan coupler for image with good color purity and
lightfastness

INVENTOR(S): Takahashi, Osamu; Soejima, Susumu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

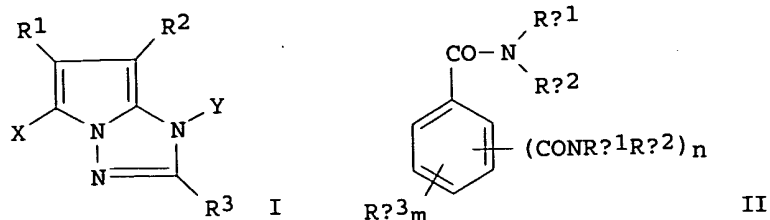
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11024217	A2	19990129	JP 1997-181487	19970707

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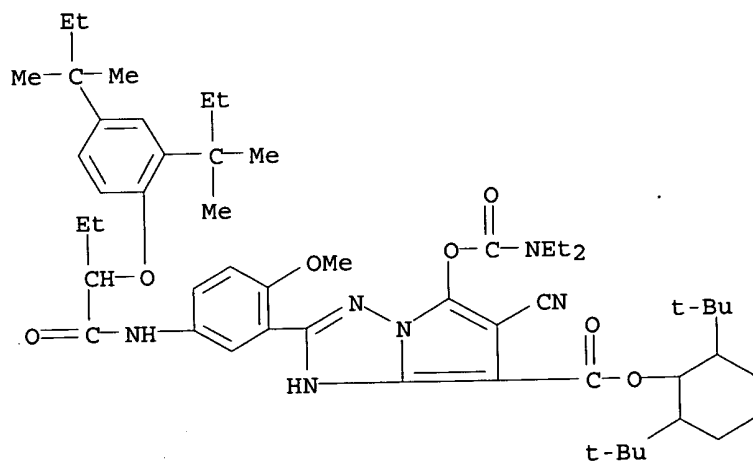
AB The material contains an emulsion layer contg. a pyrrolo[triazole]-type cyan coupler I (R1, R2 = electron-withdrawing group with Hammett's σ_p ≥ 0.65 ; R3 = substituents; X = H, a group leaving upon coupling with an oxidized developer of an arom. primary amine; Y = H, substituents), an amine Ra1OLNRa2Ra3 [Ra1, Ra2 = alk(en)yl, aryl, heterocycle; Ra3 = H, alk(en)yl, aryl, heterocycle; L = single bond, arylene] and a benzamide deriv. II [Rb1, Rb2 = aliph., arom., heterocyclic group; Rb3 = substituents; m, n = 0-5 (m + n ≤ 5)]. The material is imagewise exposed by being scanned with modulated light beam and then developed.

IT 183744-82-3 220324-34-5

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; color photog. emulsion contg. pyrrolo[triazole] cyan coupler and amines for pure and lightfast images)

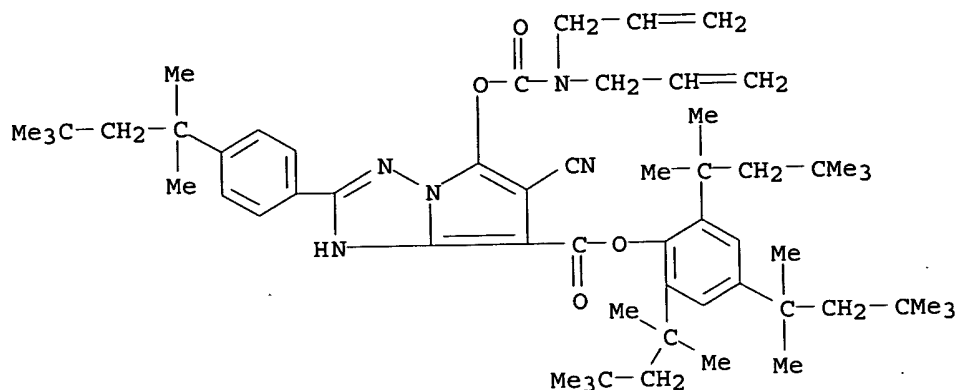
RN 183744-82-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[5-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-2-methoxyphenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 220324-34-5 CAPLUS

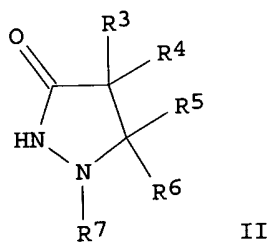
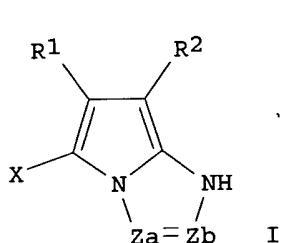
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[4-(1,1,3,3-tetramethylbutyl)phenyl]-, 2,4,6-tris(1,1,3,3-tetramethylbutyl)phenyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 37 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:35273 CAPLUS
 DOCUMENT NUMBER: 130:146176
 TITLE: Silver halide photographic material containing transition metal complex and pyrazolidone to reduce pressure effect
 INVENTOR(S): Nakadaira, Shinichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11007110	A2	19990112	JP 1997-175161	19970617

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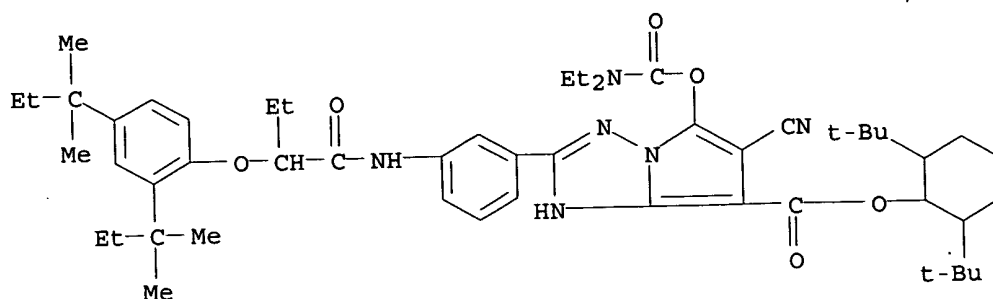
AB The photog. material has .gtoreq.1 hydrophilic colloid layer contg. (A) Ag halide particles (AgCl content .gtoreq.90 mol%) including complex(es) of Fe, Ru, Re, Os, and/or Ir, (B) a pyrroazole cyan coupler I (Za, Zb = CR3:, N:; R3 = H, substituent; Za .noteq. Zb; R1, R2 = electron-withdrawing group showing the Hammett's .sigma.p .gtoreq.0.20 where the sum of .sigma.p for R1 and R2 .gtoreq.0.65; X = H, leaving group by coupling reaction with oxidized color developer), and (C) a pyrazolidone deriv. II (R3, R4 = H, aryl, C1-30 alkyl; R5, R6 = H, alkyl, aryl; R7 = aryl). It shows good develop ability and color reprodn. quality, and is resistant to pressure effect, consequently it is suitably used as multilayer color papers.

IT 200137-20-8

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RL: DEV (Device component use); USES (Uses)
(cyan coupler; color photog. material contg. transition metal complex
and pyrazolidone to reduce pressure effect)

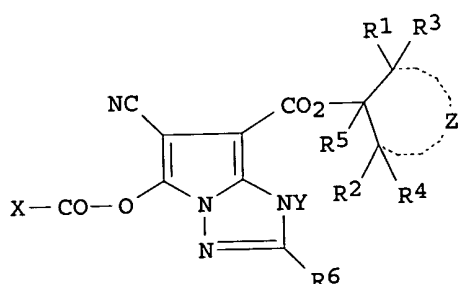
RN 200137-20-8 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 38 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:32288 CAPLUS
DOCUMENT NUMBER: 130:160604
TITLE: Color photographic film containing nondiffusible
colorless carboxylic acid and showing good pressure
resistance
INVENTOR(S): Yokosawa, Akihito
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11007109	A2	19990112	JP 1997-175160	19970617

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AB The material comprises a reflective support laminated with a waterproof
resins from both sides, an emulsion layer contg. .gtoreq.95 mol% (based on
the total Ag halide) AgCl and contg. a Group VIII metal, and a hydrophilic
colloid layer contg. a pyrroloazole cyan coupler I (R1, R2 = alkyl, aryl;
R3-5 = H, alkyl, aryl; R6 = substituent; X = heterocycle, amino, aryl; Z =

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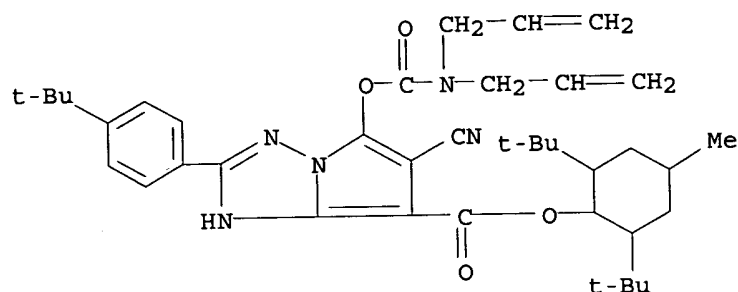
metal-free ring; Y = H, group leaving upon reaction with an oxidized developer) and a nondiffusible nonchromogenic colorless carboxylic acid (salt). The support has a lamination layer contg. .gtoreq.18 wt.% (based on the waterproof resin) white pigment on the emulsion side. The material shows rapid developability and provides sharp images with good color reprodn.

IT 184947-09-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyan coupler; pressure-resistant color photog. film contg. nondiffusible colorless carboxylic acid)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 39 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:811776 CAPLUS

DOCUMENT NUMBER: 130:117279

TITLE: Color photographic film containing colorless nonchromogenic carbonamide compound and showing good color reproduction

INVENTOR(S): Shimada, Yasuhiro; Shimura, Yoshio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

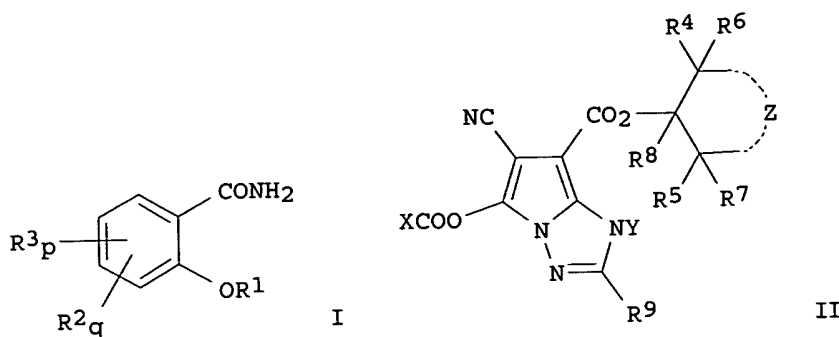
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10333298	A2	19981218	JP 1997-144169	19970602

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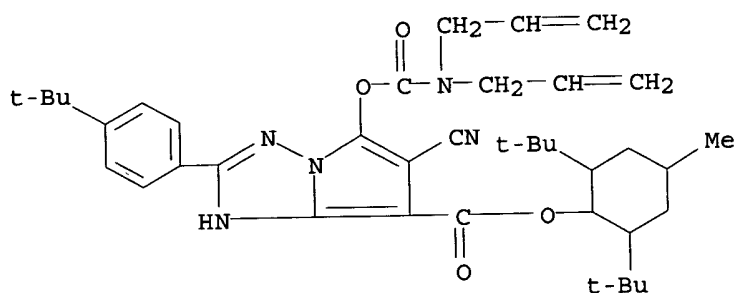
AB The film contain the title carbonamide compd. I (R1, R2 = alkyl, aryl, acyl, carbamoyl, alkoxy carbonyl; R3 = halo, alkyl, aryl, carbamoyl, alkoxy carbonyl, sulfamoyl, sulfonyl; q = 0-2; p = 0-4; q + p ≤ 4; .gtoreq.1 of R1, R2, and/or R3 has (or comprise) C8-22 nondiffusible group) in a hydrophilic colloid layer. A pyrrolo triazole cyan coupler II (R4, R5 = alkyl, aryl; R6, R7, R8 = H, alkyl, aryl; Z = satd. ring; R9 = substituent; X = heterocycle, aryl, amino; Y = H, leaving group in a chromogenic development process) may be incorporated with I in the hydrophilic colloid layer.

IT 184947-09-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyan coupler; color photog. film contg. aryl-substituted carbonamide deriv. as solvent for pyrrolo triazole cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



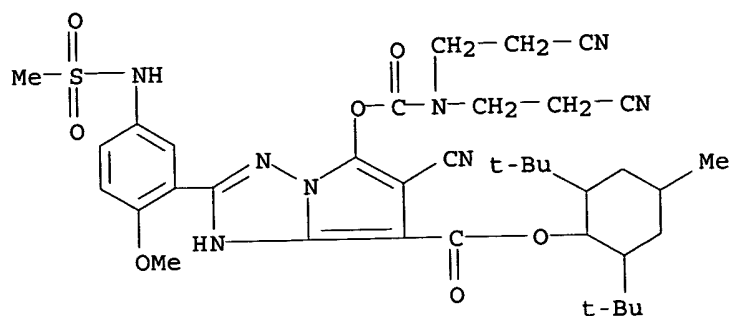
IT 178743-95-8 178743-96-9

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; color photog. film contg. aryl-substituted carbonamide deriv. as solvent for pyrrolo triazole cyan coupler)

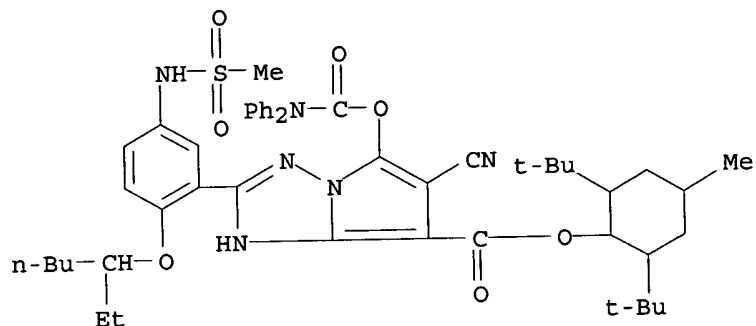
RN 178743-95-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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RN 178743-96-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[2-[(1-ethylpentyl)oxy]-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

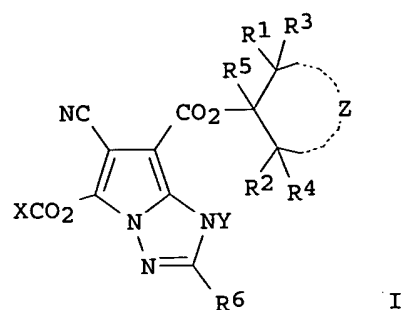


L4 ANSWER 40 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:804090 CAPLUS
 DOCUMENT NUMBER: 130:73773
 TITLE: Silver halide color photographic material
 INVENTOR(S): Saito, Naoki; Mikoshiba, Hisashi; Morigaki, Masakazu; Soejima, Shin; Yoshioka, Yasuhiro; Takahashi, Osamu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 93 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 883024	A1	19981209	EP 1998-109978	19980602
EP 883024	B1	20011010		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10333297	A2	19981218	JP 1997-144168	19970602
US 6220925	B1	20010424	US 1998-88371	19980602
AT 206827	E	20011015	AT 1998-109978	19980602
CN 1206849	A	19990203	CN 1998-115970	19980709
PRIORITY APPLN. INFO.:			JP 1997-144168	A 19970602
OTHER SOURCE(S):			MARPAT 130:73773	

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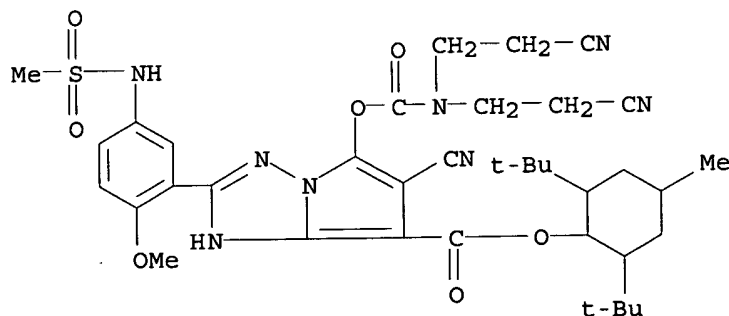
AB A silver halide color photog. material comprises a support having provided thereon at least one hydrophilic colloid layer, wherein the silver halide color photog. material contains a coupler represented by the formula I wherein R1 and R2 each represents an alkyl group or an aryl group; R3, R4 and R5 each represents a hydrogen atom, an alkyl group or an aryl group; Z represents a nonmetallic at. group necessary to form a satd. ring; R6 represents a substituent; X represents a heterocyclic group, a substituted amino group or an aryl group and Y represents a hydrogen atom or a group capable of being released upon color development and a non-color-forming colorless cyclic imide compd. having a diffusion-resistant group. The silver halide color photog. material has an excellent color-forming property to provide a color image of high max. color d. and good color reproducibility.

IT 178743-95-8 178743-96-9 183744-82-3

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan photog. coupler to be used in combination with cyclic imide compds. having diffusion-resistant groups in color photog. emulsions)

RN 178743-95-8 CAPLUS

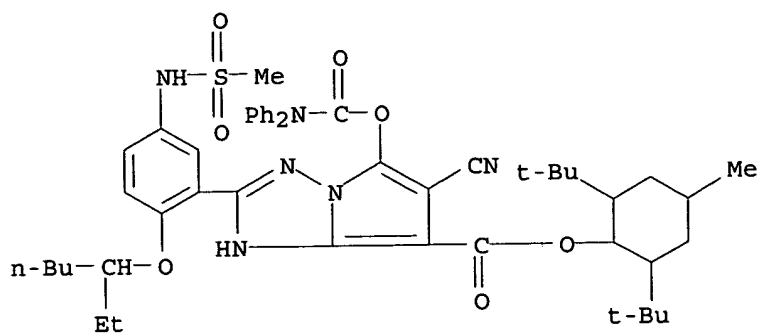
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 178743-96-9 CAPLUS

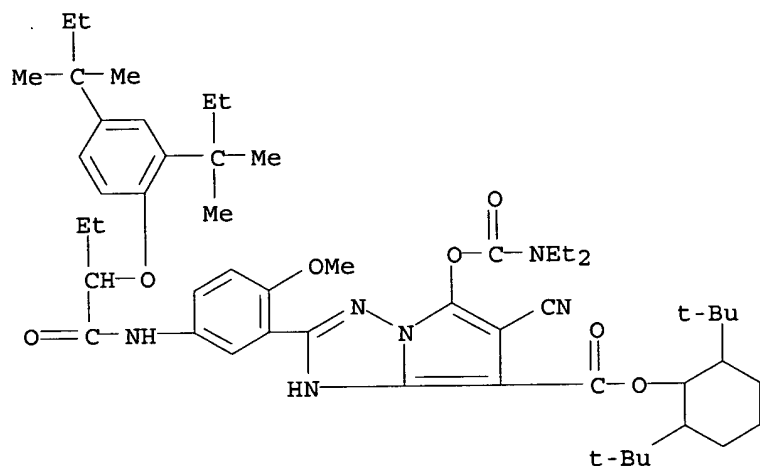
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[2-[(1-ethylpentyl)oxy]-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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RN 183744-82-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[5-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-2-methoxyphenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)

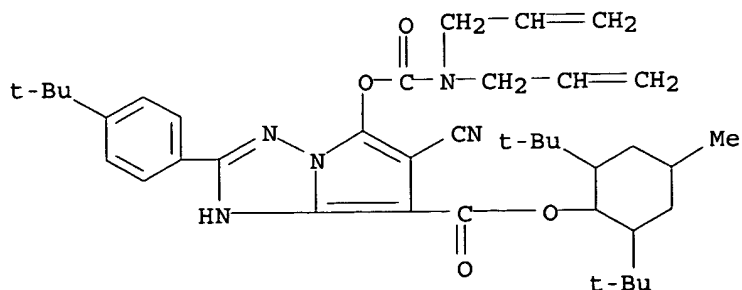


IT 184947-09-9

RL: TEM (Technical or engineered material use); USES (Uses)
(reaction in prepg. cyan photog. coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



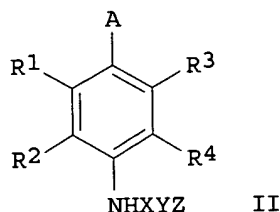
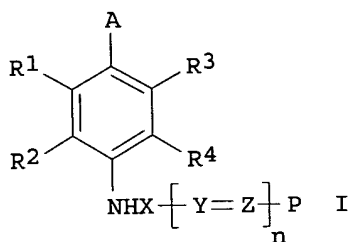
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REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:735423 CAPLUS
DOCUMENT NUMBER: 130:59003
TITLE: Silver halide color diffusion-transfer photographic material containing dye-scavenging polymer to improve whiteness of background
INVENTOR(S): Taguchi, Toshiki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 68 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 10301246	A2	19981113	JP 1997-118898	19970422

GI



AB The photog. material contg. a photog. Ag halide, a binder, a chromogenic coupler, and a developing agent selected from I (R1-5 = H, substituent; A = OH, substituted amino; X = polyvalent linkage selected from CO, SO, SO2 PO.; Y, Z = N, CR5.; n .gtoreq.0; P = proton-releasing group or cationic group) and II (Y = bivalent linkage; Z = nucleophile) is characterized by incorporation of a scavenger which traps diffusible colorant present in the developing environment. Preferable scavenger is vinyl polymers having an onium group. The material gives images with good background whiteness due to the scavenger.

IT 217088-50-1

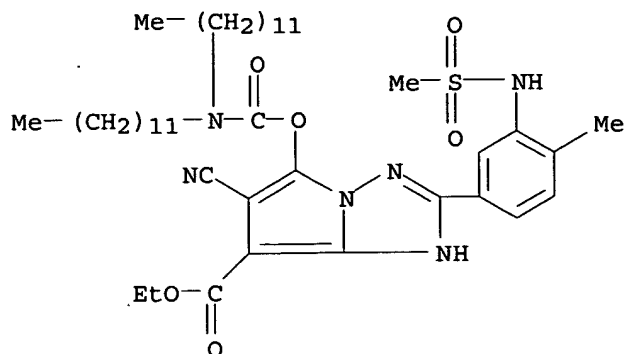
RL: DEV (Device component use); USES (Uses)

(cyan coupler; silver halide color diffusion-transfer photog. material contg. dye-scavenging polymer to improve whiteness of background)

RN 217088-50-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
[[[didodecylamino)carbonyl]oxy]-2-[4-methyl-3-
[(methylsulfonyl)aminophenyl]-, ethyl ester (9CI) (CA INDEX NAME)

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L4 ANSWER 42 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:545675 CAPLUS

DOCUMENT NUMBER: 129:209275

TITLE: Silver halide color photographic material containing pyrrolotriazole derivative cyan coupler and carboxylic acid compound

INVENTOR(S): Saito, Naoki; Morigaki, Masakazu; Yoshioka, Yasuhiro; Soejima, Susumu; Takahashi, Osamu; Mikoshiba, Takashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.

CODEN: JKXXAF

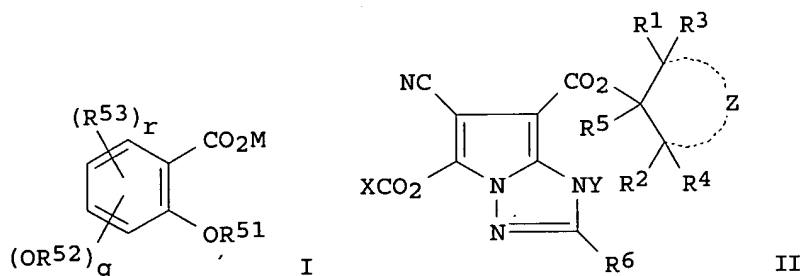
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10221825	A2	19980821	JP 1997-23021	19970205
US 6132945	A	20001017	US 1998-18966	19980205
PRIORITY APPLN. INFO.: GI			JP 1997-23021	A 19970205



AB The material contains a nondiffusive non-coloring colorless compd. I [R51-52 = (substituted) alkyl, aryl, acyl, carbamoyl, alkoxy carbonyl; R53 = halo, (substituted) alkyl, aryl, acyl, carbamoyl, alkoxy carbonyl, sulfonyl, sulfamoyl,; M = H, metal atom, ammonium; q = 0-2; r = 0-4; p + r .ltoreq.4; .gtoreq.1 of R51-53 = C8-22 nondiffusive group] or its salt in a hydrophilic colloid layer. The material contains a nondiffusive non-coloring colorless compd. or its salt and a coupler II [R1-2 = alkyl, aryl; R3-5 = H, alkyl, aryl, Z = nonmetal atoms to form satd. ring; R6 = substituent; X = heterocycle, (substituted) amino, aryl; Y = H, a

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releasing group by developing process] in the same or different hydrophilic colloid layer(s). The material shows good coloring property and color reprodn.

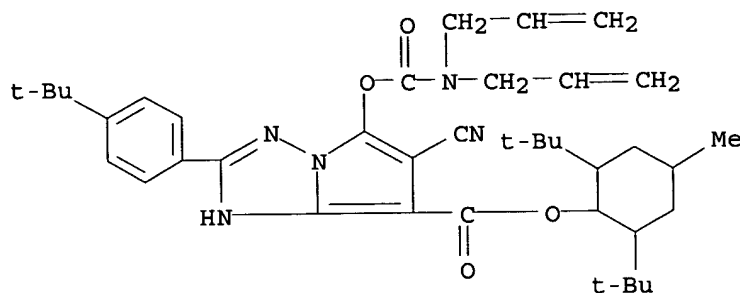
IT 184947-09-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photog. film contg. nondiffusive carboxylic acid compd. and pyrrolotriazole deriv. cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

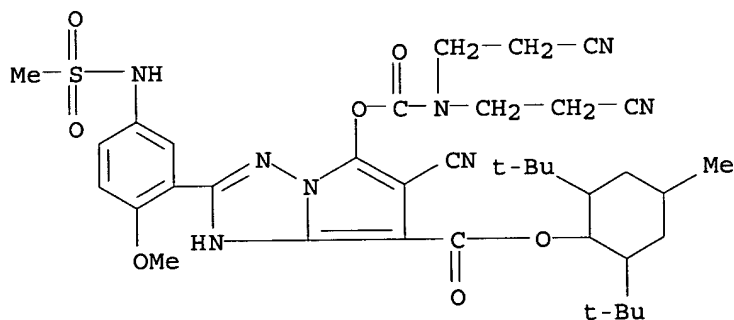


IT 178743-95-8 178743-96-9

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. film contg. nondiffusive carboxylic acid compd. and pyrrolotriazole deriv. cyan coupler)

RN 178743-95-8 CAPLUS

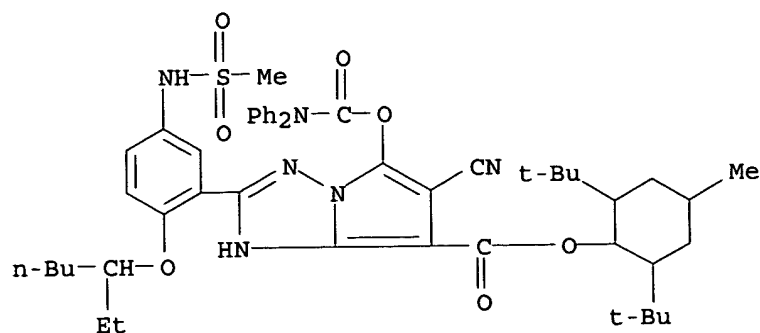
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 178743-96-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[2-[(1-ethylpentyl)oxy]-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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L4 ANSWER 43 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:543039 CAPLUS

DOCUMENT NUMBER: 129:168037

TITLE: Silver halide color photographic material, phenidone compounds used therefor, and process for preparing the same

INVENTOR(S): Mikoshiba, Hisashi; Yoshioka, Yasuhiro; Soejima, Shin; Takahashi, Osamu; Saito, Naoki; Morigaki, Masakazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 162 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

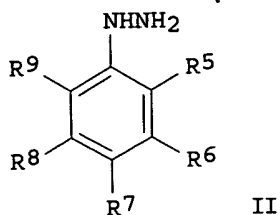
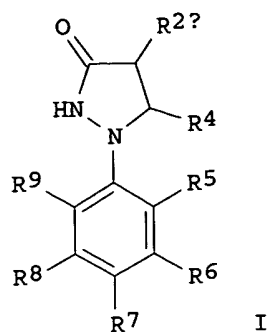
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9833760	A1	19980806	WO 1998-JP432	19980202
W: CN, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 894786	A1	19990203	EP 1998-901097	19980202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1220657	A	19990623	CN 1998-800354	19980202
US 6258521	B1	20010710	US 1998-163064	19980924
US 6462199	B1	20021008	US 2000-716359	20001121
PRIORITY APPLN. INFO.:				
			JP 1997-20816	A 19970203
			JP 1997-140719	A 19970529
			JP 1997-195881	A 19970722
			WO 1998-JP432	W 19980202
			US 1998-163064	A3 19980924

OTHER SOURCE(S): MARPAT 129:168037

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AB Claimed is a silver halide color photog. material improved in the fastness of a color image, color reprodn., cyan stain, cyan color mixing at the time of processing, and the like by the combined use of a phenidone compd. having a particular structure, such as one represented by general formula (I; R4 = H, C1-30 alkyl, C6-20 aryl; R2a = C1-30 alkyl or alkenyl; R5 - R9 = H, alkyl, aryl, alkoxy, aryloxy, NH2, alkylamino, arylamino, acylamino, aminocarbonylamino, alkoxycarbonylamino, arylcarbonylamino, alkoxycarbonyl, aryloxycarbonyl, sulfonyl, sulfonylamino, halo, OH, CO2H, heterocyclyl, SO2NH2, CONH2, azo, alkylthio, arylthio, imido, sulfinyl, phosphonyl, acyl) and a pyrrolotriazole cyan coupler. The phenidone compds. I can be prepd. at a low cost on a com. scale by reacting an .alpha.-alkyl- or alkenylacrylic ester of formula R4HC:CR2aCO2R3 (R2a, R4 = same as above) with a phenylhydrazine compd. represented by general formula (II; R5 - R9 = same as above). Thus, a soln. of 74.04 mmol CH2:C(C16H33-n)CO2Me in toluene was dropwise to a stirred mixt. of 67.0 mmol phenylhydrazine and 73.7 mmol NaOMe at 100.degree. and the resulting mixt. was allowed to react at 100.degree. for 30 min to give I (R2a = C16H33-n, R4 - R9 = H) (III). A color photog. paper contg. III, a cyan coupler (IV), a hindered amine (V) showed cyan stain .DELTA.D of 0.01, good color reprodn., and 91% photostability (residual ratio).

IT 184947-09-9 200137-20-8 200137-23-1

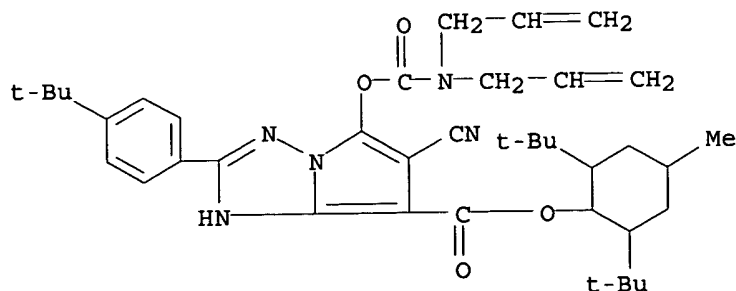
211051-85-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(silver halide color photog. material contg. phenidone compds. and pyrrolotriazole cyan couplers)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

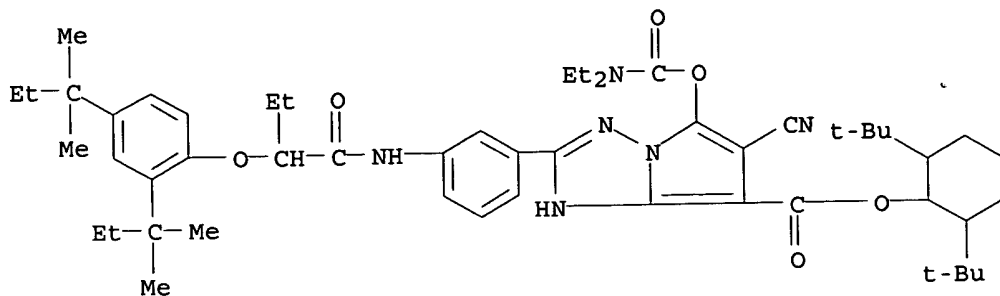


RN 200137-20-8 CAPLUS

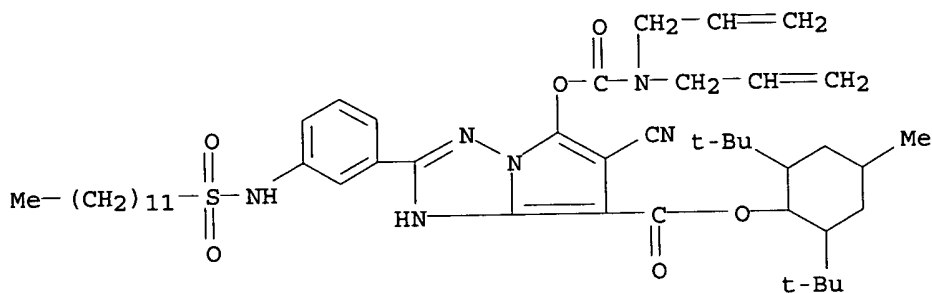
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-

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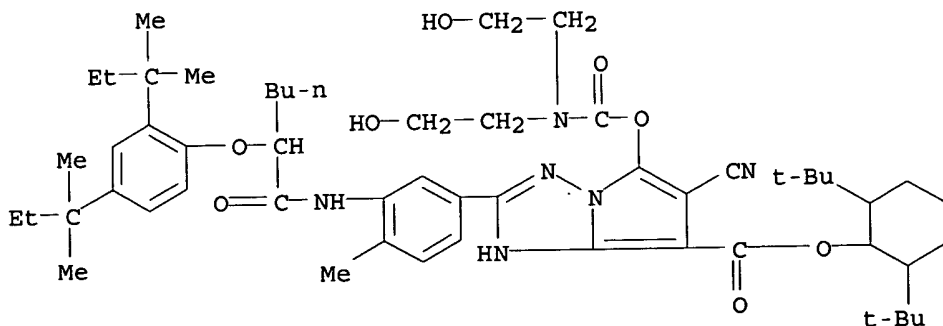
dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-
[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester
(9CI) (CA INDEX NAME)



RN 200137-23-1 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 211051-85-3 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxohexyl]amino]-4-methylphenyl]-5-[[[bis(2-hydroxyethyl)amino]carbonyl]oxy]-6-cyano-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

11

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

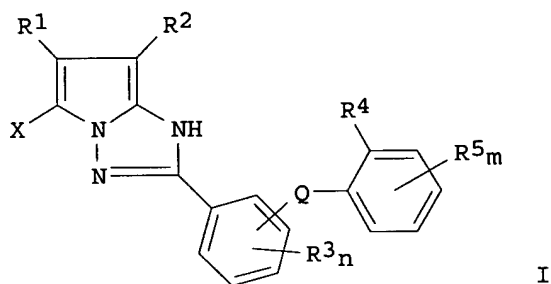
L4 ANSWER 44 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:497926 CAPLUS

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DOCUMENT NUMBER: 129:182044
 TITLE: Silver halide color photographic material
 INVENTOR(S): Ito, Takayuki; Matsuoka, Mitsuyuki; Shimata, Yasuhiro;
 Matsuda, Naoto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10198012	A2	19980731	JP 1997-260172	19970925
PRIORITY APPLN. INFO.:			JP 1996-318564	19961115
OTHER SOURCE(S):			MARPAT 129:182044	

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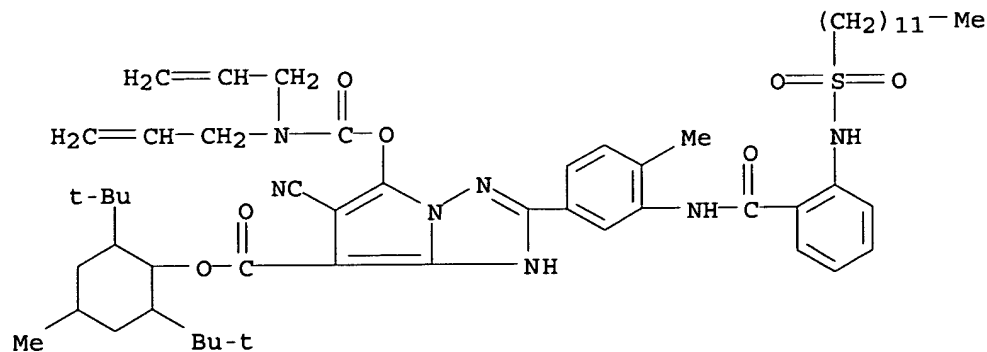
AB The Ag halide color photog. material comprises a coupler I (R1,2 = electron-withdrawing group with Hammett's substituent const. 0.2.ltoreq..sigma.p.ltoreq.1.0; R3 = substituent; n = 0-4; Q = NHCO, NHSO2, CONH, etc.; R4 = NHCOH, etc.; R5 = substituent; m = 0-4; X = coupling off group) in at least .gtoreq.1 layer formed on a support. The coupler showed good coor-forming property even at a low oil content.

IT 211380-15-3P

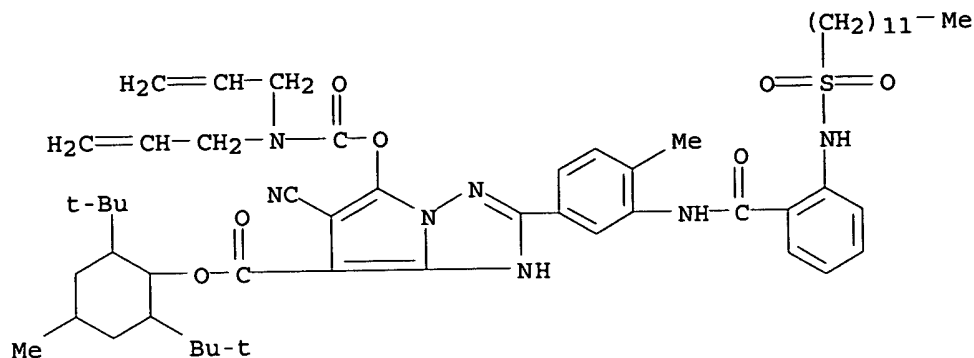
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (coupler contained in silver halide color photog. material)

RN 211380-15-3 CAPLUS

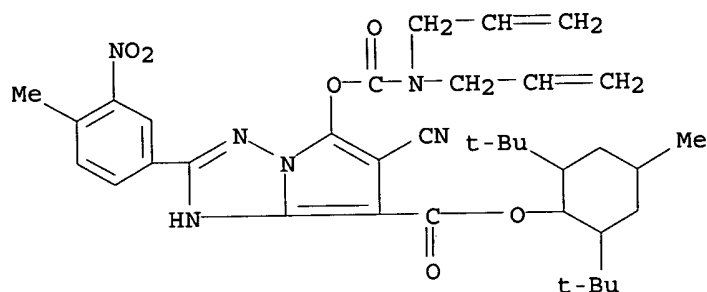
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[[2-[(dodecylsulfonyl)amino]benzoyl]amino]-4-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



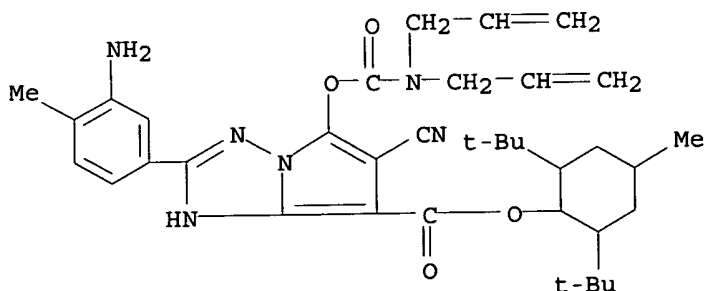
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IT 211380-18-6P 211380-19-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (coupler contained in silver halide color photog. material)
 RN 211380-18-6* CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-2-(4-methyl-3-nitrophenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 211380-19-7 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-(3-amino-4-methylphenyl)-6-cyano-5-[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 45 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:485437 CAPLUS
 DOCUMENT NUMBER: 129:154649
 TITLE: 1H-Pyrrolo-[1,2-b][1,2,4]triazole compound for
 photographic cyan coupler and its intermediate

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INVENTOR(S): Shimata, Yasuhiro; Shimura, Yoshio; Maeda, Hideki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10195077	A2	19980728	JP 1997-14824	19970113
US 6384219	B1	20020507	US 1998-3881	19980107
EP 857726	A1	19980812	EP 1998-100458	19980113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002107399	A1	20020808	US 2002-61249	20020204
PRIORITY APPLN. INFO.:			JP 1997-14823	A 19970113
			JP 1997-14824	A 19970113
			US 1998-3881	A3 19980107
OTHER SOURCE(S):			MARPAT 129:154649	
GI				

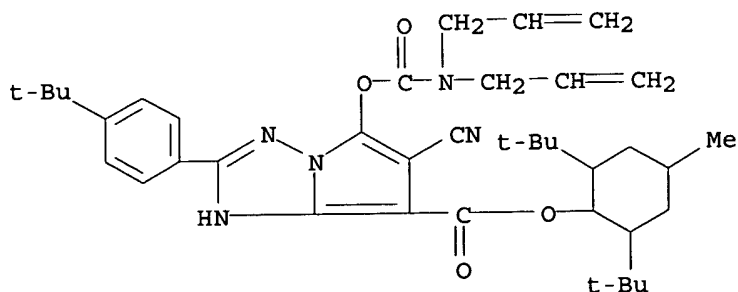
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The 1H-pyrrolo-[1,2-b][1,2,4]triazole compd. comprises I (R = alkyl; R1-4, R6-8 = H, alkyl; R1 and R2, R6 and R8 may form ring; X = heterocyclic group, substituted amino, aryl). The intermediate comprises 1H-1,2,4-triazole compd. II (R5 = H, alkyl) or III (W = halo). A photog. material using I as a coupler showed improved light resistance and hue.

IT **184947-09-9P 210965-01-8P**
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (1H-pyrrolo-[1,2-b][1,2,4]triazole compd. for light-resistant photog. cyan coupler)

RN 184947-09-9 CAPLUS

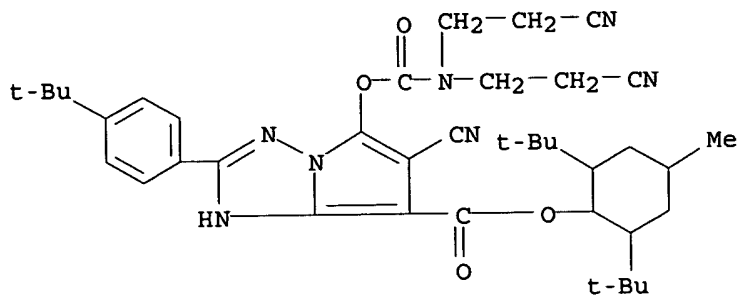
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



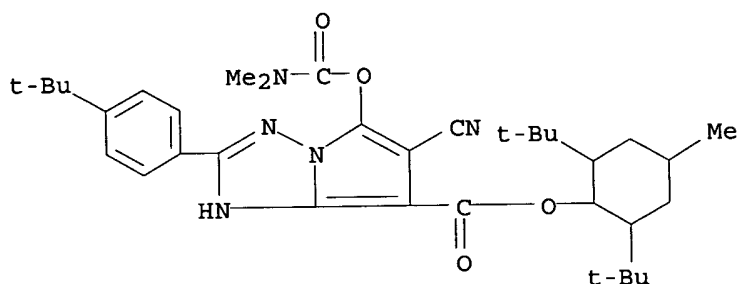
RN 210965-01-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino)carbonyl]oxy]-6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

09963584



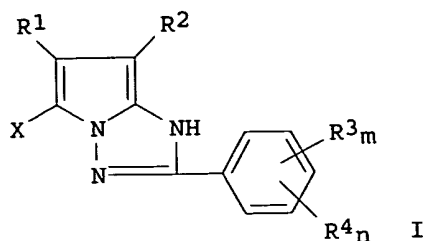
IT 210965-02-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(1H-pyrrolo-[1,2-b][1,2,4]triazole compd. for light-resistant photog. cyan coupler)
RN 210965-02-9 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[(dimethylamino) carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 46 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:351914 CAPLUS
DOCUMENT NUMBER: 129:87954
TITLE: Silver halide color photographic material containing pyrrolo-triazole cyan coupler
INVENTOR(S): Ito, Takayuki; Matsuoka, Mitsuyuki; Shimada, Yasuhiro; Shimura, Yoshio; Matsuda, Naoto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10142759	A2	19980529	JP 1996-304415	19961115

GI



AB The color photog. material has .gtoreq.1 layer contg. a pyrrolotriazole coupler I [R1, R2 = electron-withdrawing group with Hammett's .sigma..rho. 0.2-1.0; R3 = NHCOR31, NHSO2R32, CONHR33; R31 = H, alkyl, aryl, heterocycle, alkyloxy, aryloxy; R32, R33 = alkyl, aryl, heterocycle; R4 = substituent; n = 0-(5-m); m = 2-5; X = H, leaving group to be released by the coupling reaction with the oxidized developing agent] on a support. The coupler has good developability even at low solvent ratio and good stability from leuco cyan dye problem. The photog. material incorporating the coupler has consistent color reprodn. quality. Preferable application of the coupler is to multilayer color reversal films. Suitable couplers are I [R1 = CN, R2 = 2,6-dibutyl-4-methyl-phenoxy-carbonyl, R3 = 2,5-di(octyloxy-5-hydroxy-phenylsulfoamino), R4 = 4-Me].

IT 209341-85-5

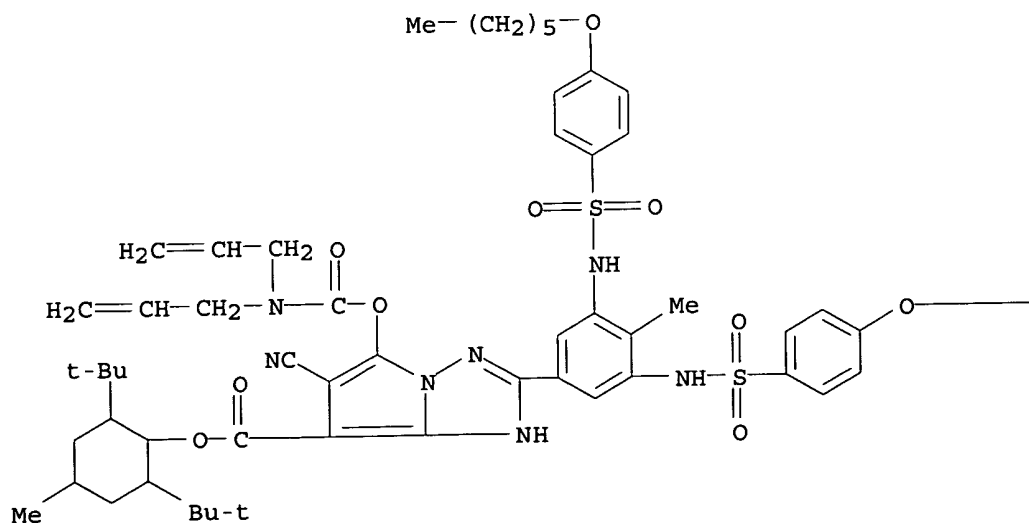
RL: DEV (Device component use); USES (Uses)

(cyan coupler; silver halide color photog. material contg. pyrrolotriazole cyan coupler to improve color developability and safety from leuco cyan dye)

RN 209341-85-5 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3,5-bis[[[4-(hexyloxy)phenyl]sulfonyl]amino]-4-methylphenyl]-6-cyano-5-[[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



— (CH₂)₅—Me

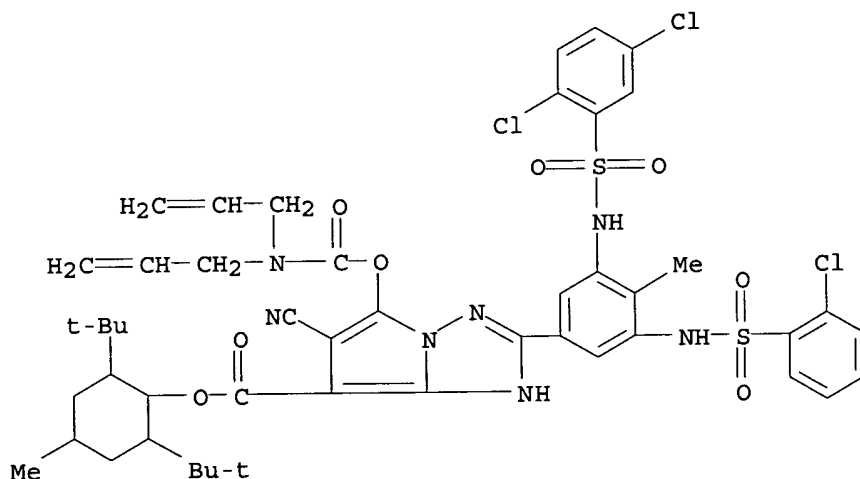
IT 209341-82-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(cyan coupler; silver halide color photog. material contg. pyrrolotriazole cyan coupler to improve color developability and safety from leuco cyan dye)

RN 209341-82-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[[2-chlorophenyl)sulfonyl]amino]-5-[[[2,5-dichlorophenyl)sulfonyl]amino]-4-methylphenyl]-6-cyano-5-[[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 47 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:184461 CAPLUS

DOCUMENT NUMBER: 128:277020

TITLE: Silver halide color photographic material containing a pyrroloazole polymer cyan coupler

INVENTOR(S): Mizukawa, Hiroki; Shimada, Yasuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

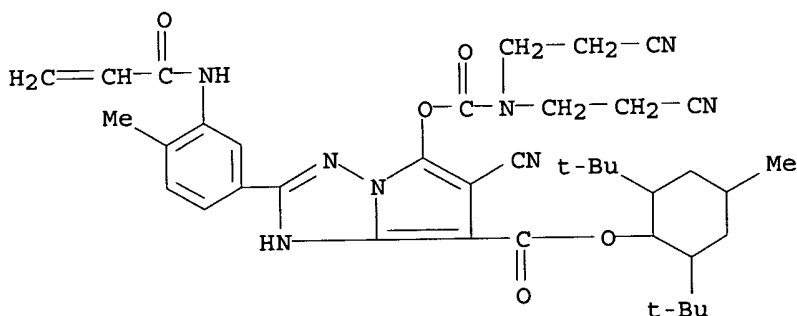
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

09963584

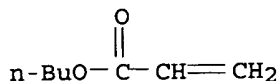
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 10078640	A2	19980324	JP 1996-250856	19960903
AB	<p>Claimed color photog. material contain (1) a polymer comprising a coupler monomer $\text{CH}_2\text{:CR}_1(\text{L}_1)\text{i}(\text{L}_2)\text{jQ}$ ($\text{R}_1 = \text{H}$, alkyl, aryl, Cl; $\text{L}_1 = \text{CONR}_2, \text{CO}$, $\text{NR}_2\text{C}(\text{:O})$, $\text{OC}(\text{:O})$, etc; $\text{R}_2 = \text{H}$, alkyl, aryl, heterocyclic group; $\text{L}_2 =$ bivalent linkage; $\text{i}, \text{j} = 0, 1$; $\text{Q} =$ pyrroloazole moiety), and (2) a polymer comprising a monomer having no coupling capability. The compd. is a cyan coupler with good developability, providing images with good spectral characteristics and good image stability. Thus, a polymer coupler prepd. from 2-acrylamino-phenyl-5-morpholinocarbonyloxy-6-cyano-7-(4-methyl-2,4-di-tert-butyl-1-cyclohexyl)pyrrolotriazole and Bu acrylate was successfully used for a multilayer color neg. film.</p>				
IT	<p>205505-04-0 RL: DEV (Device component use); USES (Uses) (coupler; color photog. material contg. pyrroloazole polymer cyan coupler for developability and color reprodn. quality)</p>				
RN	<p>205505-04-0 CAPLUS</p>				
CN	<p>1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyloxy]-6-cyano-2-[4-methyl-3-[(1-oxo-2-propenyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)</p>				
CM	<p>1</p>				
CRN	<p>205505-03-9</p>				
CMF	<p>C39 H48 N8 O5</p>				



CM 2

CRN 141-32-2

CMF C7 H12 O2



L4 ANSWER 48 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:154921 CAPLUS

DOCUMENT NUMBER: 128:250641

TITLE: Color image formation using silver halide color photographic photosensitive materials

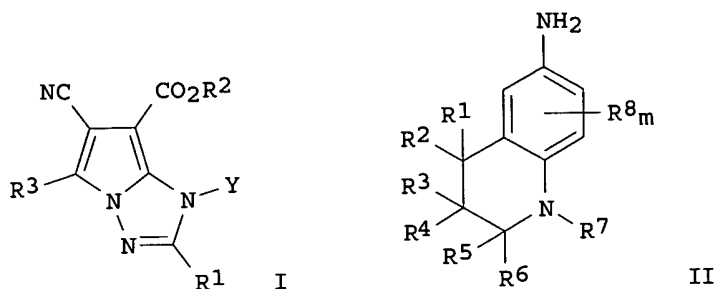
INVENTOR(S): Kimura, Keizo; Hirano, Shigeo; Shimada, Yasuhiro

09963584

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10062926	A2	19980306	JP 1996-218903	19960820

OTHER SOURCE(S): MARPAT 128:250641
 GI



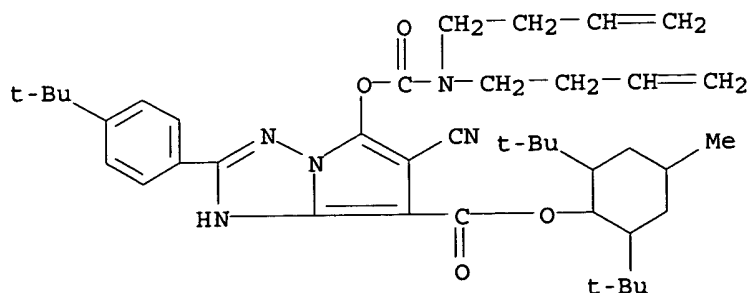
AB The title materials, comprising a support coated with .gtoreq.1 Ag halide emulsion layer contg. .gtoreq.1 cyan coupler I [R1 = substituent; R2 = aliph. group; R3 = H or XCO2 (X = heterocycle, substituted amino, aryl); Y = H or substituent], are color-developed in the presence of .gtoreq.1 p-phenylenediamine-type color developing agent of the formula II [R1-6 = H or substituent, in .gtoreq.1 of the groups R1 and R2, R3 and R4, and R5 and R6 the both are substituents; R7 = alkyl, aryl, heterocycle; R8 = substituent; n = 0-3] to form color images. High color quality images with good lightfastness and thermal resistance and without residual color stain are obtained.

IT 204757-09-5 204757-10-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (coupler; color photog. emulsion contg. condensed polycyclic heterocycle cyan coupler and p-phenylenediamine developer)

RN 204757-09-5 CAPLUS

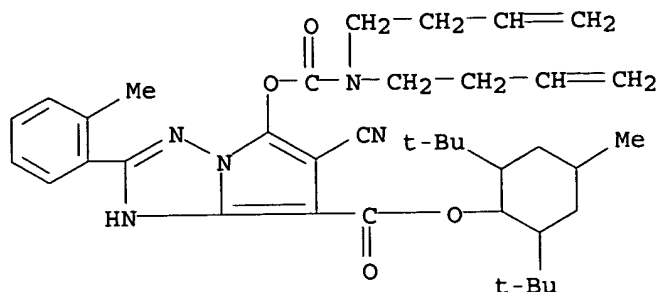
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-3-butenylamino)carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 204757-10-8 CAPLUS

09963584

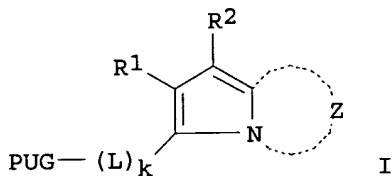
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-3-butenylamino)carbonyl]oxy]-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 49 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:154919 CAPLUS
 DOCUMENT NUMBER: 128:263879
 TITLE: Silver halide color photographic material using pyrrole derivative coupler
 INVENTOR(S): Kawagishi, Toshio
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10062923	A2	19980306	JP 1996-216205	19960816

GI



AB The title material contains a compd. I (Z = nonmetal atoms required to form a N-contg. azole ring; R1, R2 = electron-attracting group with Hammett's substituent const. $\sigma_p \geq 0.3$; L = timing group; k = 0-2; PUG = photog. useful compd. residue). The compd. releases the photog. useful group effectively upon development and produces a dye showing good resistance to redn. discoloration.

IT 204850-19-1 204850-20-4 204850-21-5
 204850-22-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (pyrrole deriv. photog. coupler)

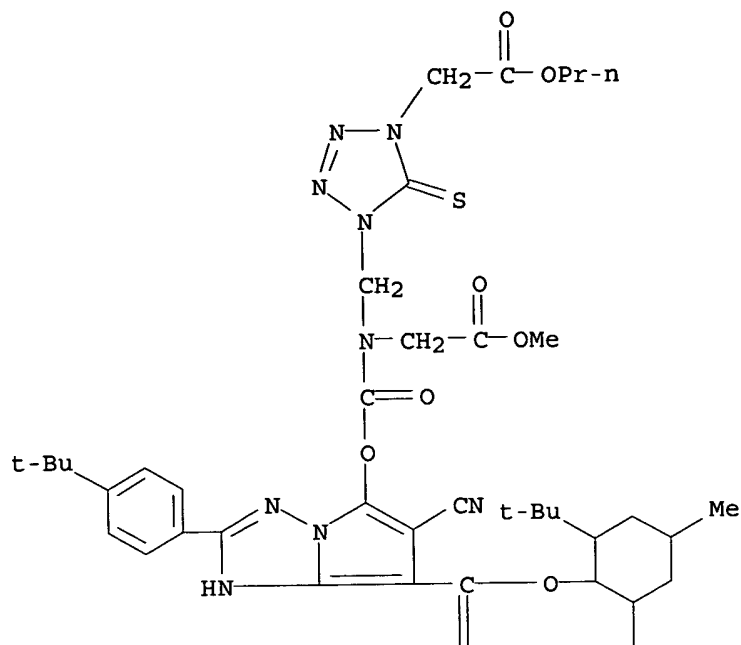
RN 204850-19-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[[[4,5-dihydro-4-(2-oxo-2-propoxyethyl)-5-thioxo-1H-tetrazol-1-yl]methyl](2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-,

09963584

2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

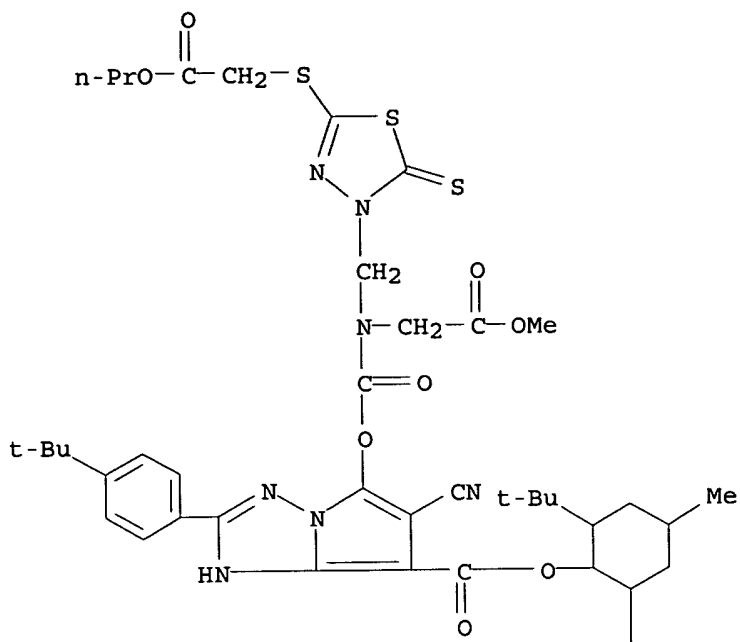
PAGE 1-A



PAGE 2-A

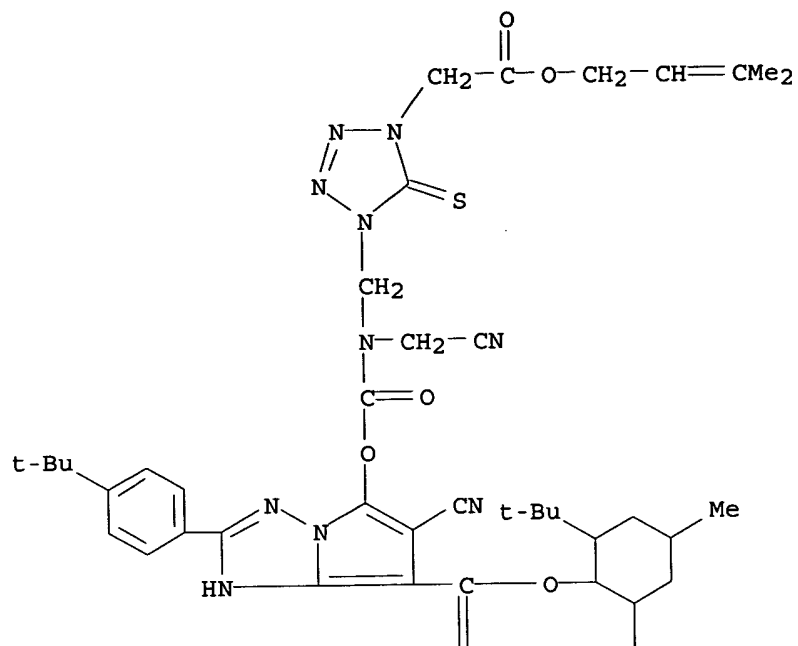


RN 204850-20-4 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(2-methoxy-2-oxoethyl)[5-[(2-oxo-2-propoxyethyl)thio]-2-thioxo-1,3,4-thiadiazol-3(2H)-yl]methyl]amino]carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

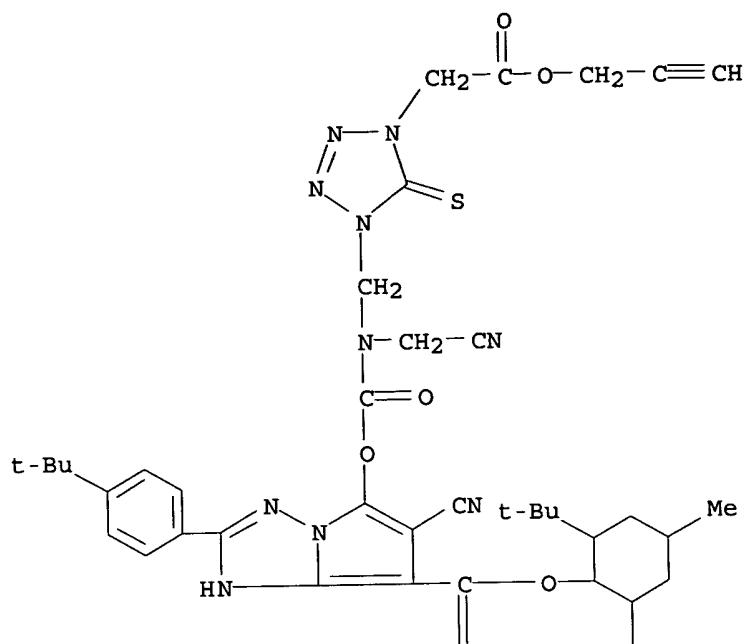


t-Bu

RN 204850-21-5 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[[cyanomethyl][[4,5-dihydro-4-[2-[(3-methyl-2-butenyl)oxy]-2-oxoethyl]-5-
 thioxo-1H-tetrazol-1-yl]methyl]amino]carbonyl]oxy]-2-[4-(1,1-
 dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl
 ester (9CI) (CA INDEX NAME)

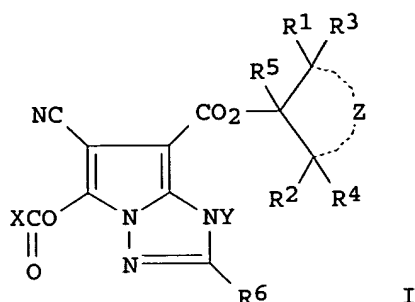


RN 204850-22-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[[cyanomethyl][[4,5-dihydro-4-[2-oxo-2-(2-propynyloxy)ethyl]-5-thioxo-1H-
 tetrazol-1-yl]methyl]amino]carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-,
 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

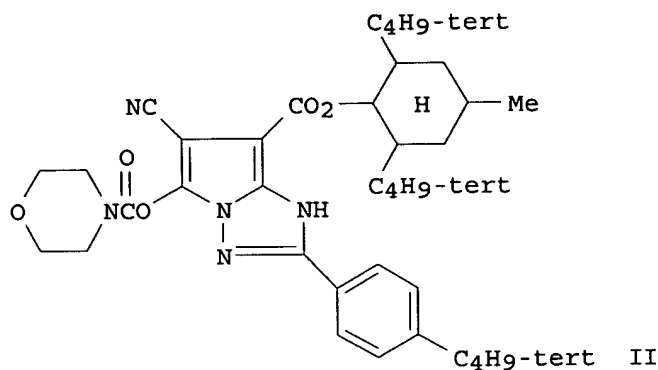


L4 ANSWER 50 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:25606 CAPLUS
 DOCUMENT NUMBER: 128:134335
 TITLE: Silver halide color photographic material using novel cyan coupler
 INVENTOR(S): Kawai, Hiroshi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10003147	A2	19980106	JP 1996-157034	19960618



I



II

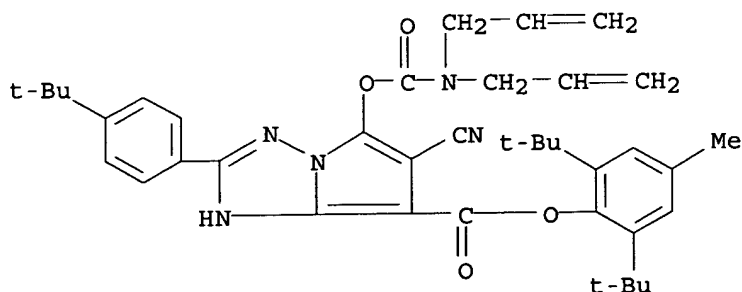
AB The title material, possessing photog. constitutive layers comprising yellow, magenta, and cyan-coloring Ag halide emulsion layers and .gtoreq.1 non-photosensitive hydrophilic layer on a support, contains .gtoreq.1 cyan-coloring coupler I [R1-5 = H or substituent; Z = (substituted) nonmetal atoms required to form a ring; X = heterocycle, (substituted) amino of which the substituents may link to form a ring, aryl; Y = H or substituent; R6 = substituent] in the cyan-coloring layer and an antioxidant with mol. wt. .ltoreq.330 in .gtoreq.1 of the constitutive layers. The material shows good color reproducibility and stable photog. properties independent of the variation in processing even after storage for long periods of time. Thus, a multilayer color photog. film was prepd. by using a red-sensitive Ag(Br,Cl) emulsion layer contg. II and an UV-absorbing layer contg. ascorbic acid for the antioxidant.

IT 201931-72-8

RL: DEV (Device component use); USES (Uses)
(triazole deriv. photog cyan coupler)

RN 201931-72-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylphenyl ester (9CI) (CA INDEX NAME)



09963584

L4 ANSWER 51 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:732513 CAPLUS

DOCUMENT NUMBER: 128:68441

TITLE: Silver halide color photographic material using novel coupler

INVENTOR(S): Shimada, Yasuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09292679	A2	19971111	JP 1996-131245	19960426

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

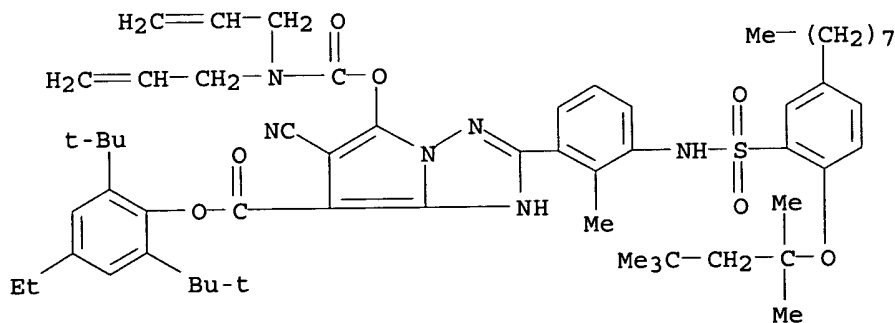
AB The title material contains, in .gtoreq.1 layer on the support, .gtoreq.1 coupler I (R1, R2 = aliph. group; R3, R4, Y = H or substituent; X = heterocycle, substituted amino, aryl). A color photog. film using II gave high color quality images with good lightfastness.

IT 200111-46-2

RL: DEV (Device component use); USES (Uses)
(triazole deriv. photog. cyan coupler)

RN 200111-46-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[2-methyl-3-[[[5-octyl-2-(1,1,3,3-tetramethylbutoxy)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-ethylphenyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 52 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:718253 CAPLUS

DOCUMENT NUMBER: 128:68435

TITLE: Silver halide color photographic material containing pyrrolotriazole cyan coupler and arylsulfonamide

INVENTOR(S): Mikoshiba, Hisashi; Yoneyama, Hiroyuki; Morigaki, Masakazu

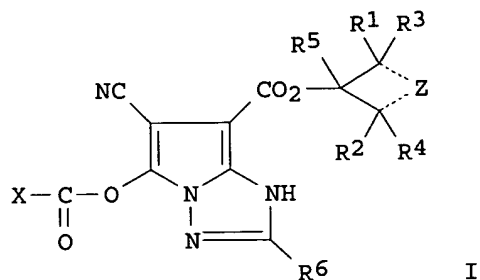
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

09963584

SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288338	A2	19971104	JP 1996-126414	19960423

OTHER SOURCE(S): MARPAT 128:68435
 GI



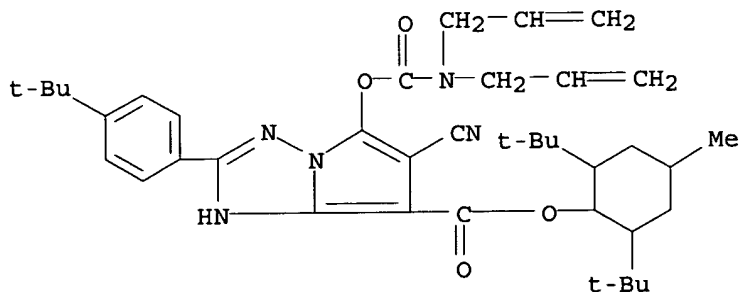
AB The material contains a pyrrolo[1,2-b]triazole cyan coupler I [R1-5 = H, substituent; Z = (substituted) nonmetal at. group required to form ring; X = H, substituent; R6 = H, substituent] and an (un)substituted arylsulfonamide. The material shows improved color reprodn. quality and gives light-resistant images.

IT 184947-09-9 200110-96-9 200137-20-8
 200137-23-1

RL: DEV (Device component use); USES (Uses)
 (silver halide color photog. material contg. pyrrolo[1,2-b]triazole cyan coupler and arylsulfonamide)

RN 184947-09-9 CAPLUS

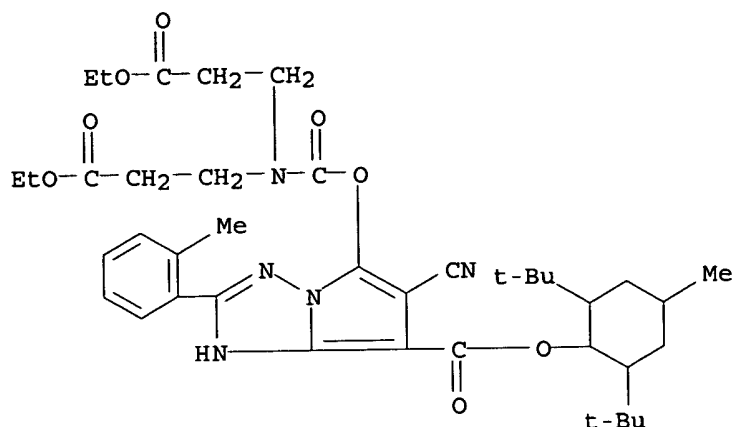
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



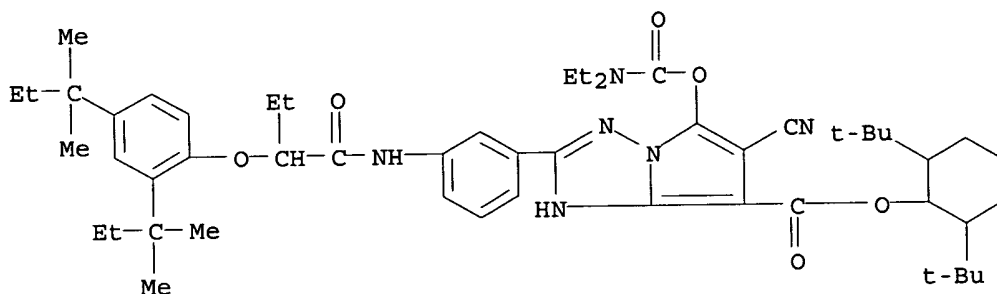
RN 200110-96-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-ethoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

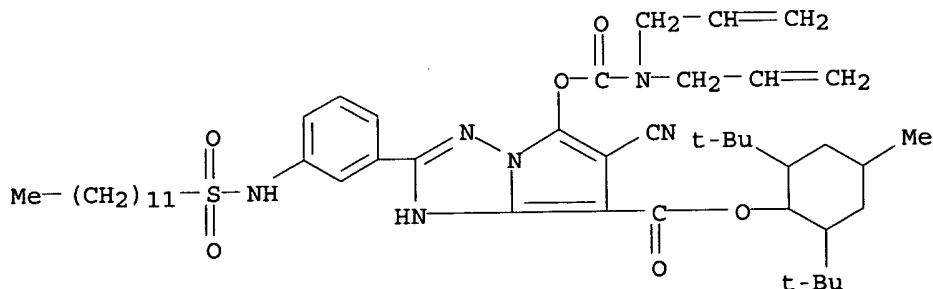
09963584



RN 200137-20-8 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylethyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[diethylamino]carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 200137-23-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[di-2-propenylamino]carbonyloxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



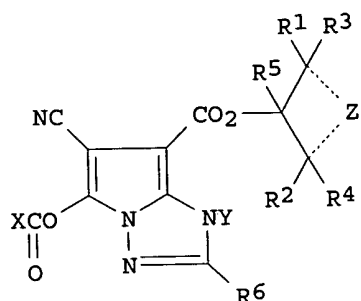
L4 ANSWER 53 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1997:718252 CAPLUS
 DOCUMENT NUMBER: 128:68434
 TITLE: Silver halide color photographic material with improved color reproduction quality and storage

09963584

INVENTOR(S): Takada, Kiyoto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288336	A2	19971104	JP 1996-101555	19960423

GI



I

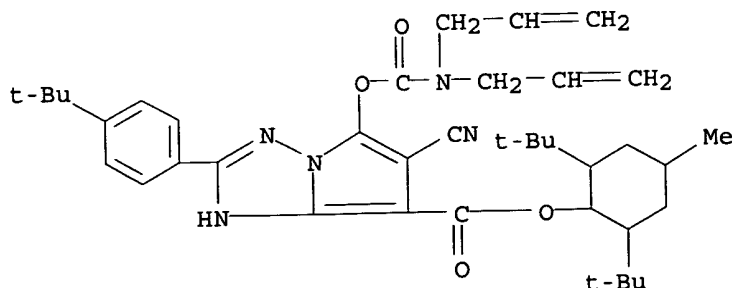
AB The material has .gtoreq.1 photosensitive Ag halide emulsion layer contg. .gtoreq.1 coupler I [R1-5 = H, substituent; Z = (substituted) nonmetal at. group required to form ring; X = heterocycle; (substituted) amino, aryl; Y = H, substituent; R6 = substituent] and AgI-free Ag(Br,Cl) or AgCl particles (AgCl content .gtoreq.98 mol%) sensitized with a Au compd. The material shows improved color reprodn. quality and storage stability.

IT 184947-09-9

RL: DEV (Device component use); USES (Uses)
 (silver halide color photog. material contg. cyan coupler for improved color reprodn. quality)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



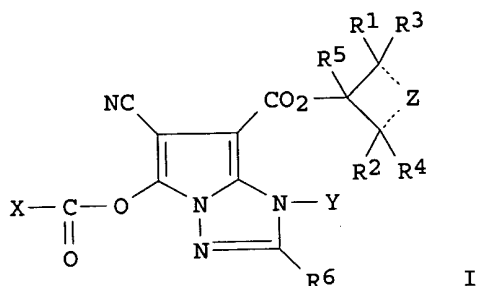
L4 ANSWER 54 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1997:716132 CAPLUS

09963584

DOCUMENT NUMBER: 128:68433
 TITLE: Silver halide photographic material containing pyrrolotriazole coupler and amine
 INVENTOR(S): Morigaki, Masakazu; Mikoshiba, Hisashi; Yoneyama, Hiroyuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288339	A2	19971104	JP 1996-126445	19960423

GI



AB Claimed photog. material has a layer contg. (1) a pyrrolotriazole coupler I (R1-5 = H, substituent; Z = non-metal ring; X = heterocyclic group, amino, aryl; R6 = substituent; Y = H, substituent) and (2) a compd. Ra1OLNRa2Ra3, where Ra1, Ra2, and Ra3 are alkyl, alkenyl, aryl, heterocyclic group; L = arylene or single bond; Ra1 and L, Ra2 and L, Ra3 and L, Ra1 and Ra2, Ra2 and Ra3, Ra1 and Ra3 may be combined to form 5-7-membered ring; Ra3 may also be H. It has good color reprodn. quality, good dye stability and provides an image with low cyan and yellow dye stains. Thus, in a multilayer color paper, coupler I (R1-5 and Z = 2,6-di-tert.-butyl-4-methylcyclohexyl; R6 = 4-tert.-butylphenyl; Y = H; X = morpholine-4-yl) and 1-methoxy-2,2,6,6-tetramethyl-4-tetradecoyl-piperidine were incorporated to provide the mentioned advantages.

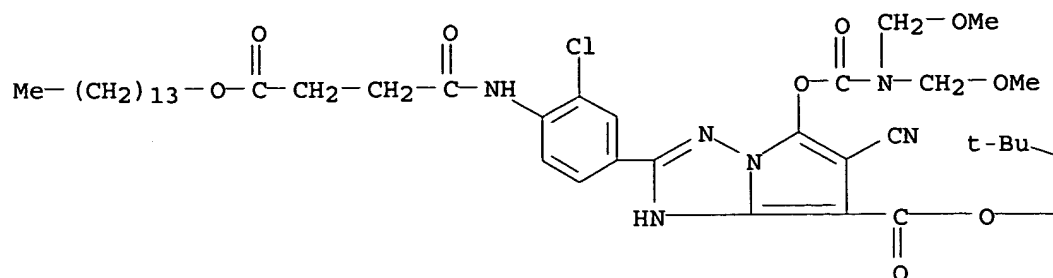
IT 200216-39-3 200216-41-7

RL: DEV (Device component use); USES (Uses)
 (photog. material contg. pyrrolotriazole coupler and amines to reduce yellow and cyan stains)

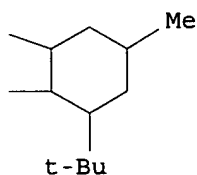
RN 200216-39-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-
 [[[bis(methoxymethyl)amino]carbonyl]oxy]-2-[3-chloro-4-[[1,4-dioxo-4-(tetradecyloxy)butyl]amino]phenyl]-6-cyano-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

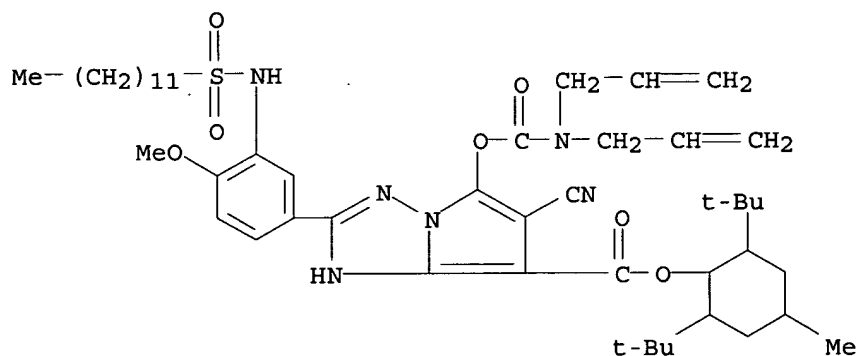


PAGE 1-B



RN 200216-41-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]-4-methoxyphenyl]-2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 55 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:716131 CAPLUS

DOCUMENT NUMBER: 128:68432

TITLE: Silver halide color photographic material containing phenolic and pyrrolo[1,2-b][1,2,4]triazole cyan couplers

INVENTOR(S): Yoneyama, Hiroyuki; Mikoshiba, Hisashi; Morigaki, Masakazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

09963584

LANGUAGE: Japanese

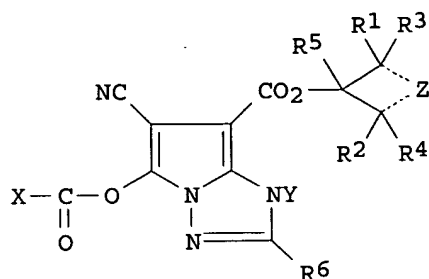
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

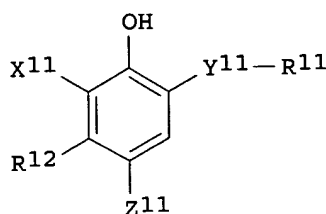
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288337	A2	19971104	JP 1996-101556	19960423

OTHER SOURCE(S): MARPAT 128:68432

GI



I



II

AB Claimed color photog. material has .gtoreq.1 cyan dye-developing Ag halide emulsion layer contg. (1) a cyan coupler I (R1-5 = H, substituent; Z = non-metal ring; X = heterocyclic group, amino aryl; R6 = substituent; Y = H, substituent) and (2) a phenolic coupler II (R11 = aliph., arom. or heterocyclic group, amino; X11 = H, halo, alkoxy, acylamino; R12 = alkyl, acylamino; R12 = and X11 may be combined to form a 5-, 6- or 7-membered ring; Z = H, leaving group to be released by the coupling reaction with the oxidized developing agent), where the added ratio of coupler II/coupler I is 60 mol% or less. It has good color reprodn. quality, good dye stability and is insensitive to the processing fluctuation. Thus, in a multilayer color paper, coupler I (R1-5 and Z = 2,6-di-tert.-butyl-4-methylcyclohexyl; R6 = 4-tert.-butylphenyl; Y = H; X = morpholine-4-yl) and coupler II (n-pentadecylcarbonylamino-4,6-di-chloro-5-ethylphenol) were utilized to provide the mentioned advantages.

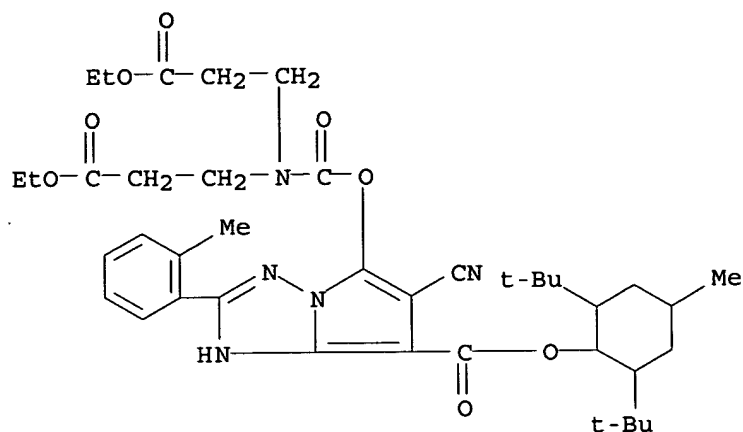
IT 200110-96-9

RL: DEV (Device component use); USES (Uses)

(color photog. material contg. phenolic and pyrrolotriazole cyan couplers to improve color reprodn. quality and dye stability)

RN 200110-96-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-ethoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 56 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:541954 CAPLUS

DOCUMENT NUMBER: 127:197698

TITLE: Silver halide color light-sensitive material containing a polymer coupler and method of making a color filter using it

INVENTOR(S): Igarashi, Tatsuya; Mizukawa, Hiroki; Hirai, Hiroyuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

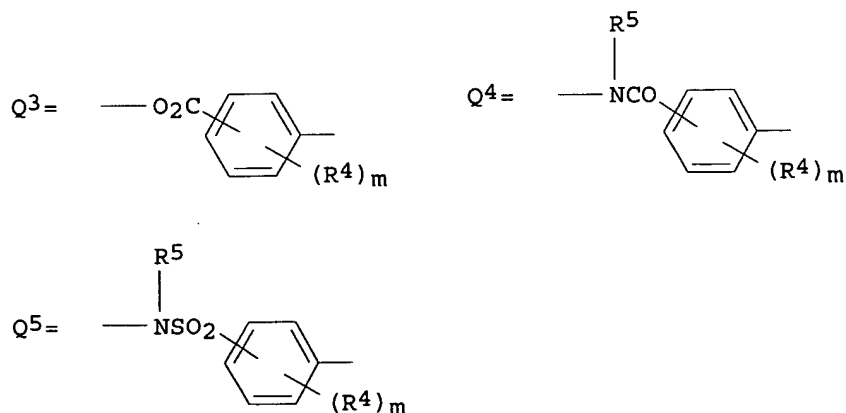
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09204027	A2	19970805	JP 1996-316864	19961114
PRIORITY APPLN. INFO.: GI			JP 1995-326252	19951122



AB The title light-sensitive material contains at least one polymer coupler selected from (1) a copolymer of at least one magenta coupler monomer of formula Q1-(L2)_j-(L1)_i-C(R1):CH₂ (I; R1 = H, Cl, alkyl, aryl; L1 = CONR₂,

CO₂, NR₂CO, O₂C, Q₃, Q₄, Q₅; wherein R₄ = substituent; R₅ = same as R₂; m = 0-4; R₂ = H, alkyl, aryl, heterocyclyl; L₂ = bivalent linkage group linking L₁ and Q₁; i, j = 0,1; Q₁ = magenta coupler residue forming a magenta dye upon coupling with the oxidized form of an arom. primary amine developer) and at least one cyan coupler of formula Q₂-(L₄)_h-(L₃)_g-C(R₃):CH₂ (II; R₃, L₃, L₄, and g are same as described in R₁, L₁, L₂, and i, resp.; Q₂ = cyan coupler residue forming a cyan dye upon coupling with the oxidized form of an arom. primary amine developer) or (2) a copolymer of a magenta coupler I, a cyan coupler II, and a noncoloring monomer contg. at least one ethylene group which does not have capability of coupling with the oxidized form of an arom. primary amine developer. In a silver halide color light-sensitive material possessing at least three silver halide emulsion layers each having different color sensitivity on a support, each silver halide emulsion layer contains a combination of couplers coloring blue, green, or red upon reaction with the oxidized form of an arom. primary amine developer. Besides these three silver emulsion layers, it also possesses at least another silver halide emulsion layer of sep. color sensitivity contg. a coupler color-compensating substantially black of transmittance d. ≥ 2.5 when all the couplers on the support are reacted. A color filter possessing blue, green, and red pixels is manufd. by pattern exposure of above silver halide light-sensitive material followed by color development and desilverization. This light-sensitive material and can form blue images excellent in spectral transmission property and thermal and light stability and is suitable for making a color filter thin in thickness, excellent in planarity and light and thermal stability, and also possessing black part of high d.

IT 194280-71-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(silver halide color light-sensitive material contg. polymer coupler and method of making color filter using it)

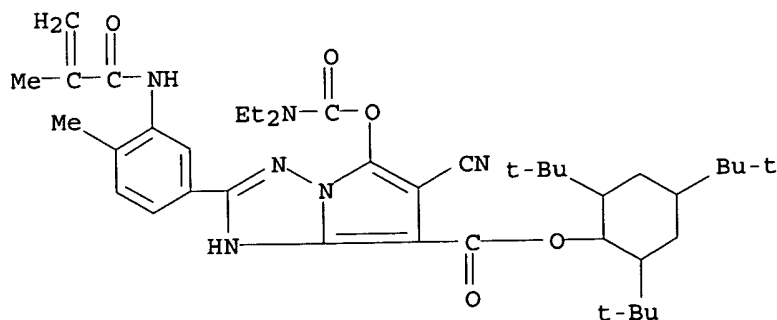
RN 194280-71-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diethylamino)carbonyl]oxy]-2-[4-methyl-3-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]-, 2,4,6-tris(1,1-dimethylethyl)cyclohexyl ester, polymer with butyl 2-propenoate and N-[4-[7-chloro-6-(1,1-dimethylethyl)-1H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-methyl-2-propenamide (9CI)
(CA INDEX NAME)

CM 1

CRN 194280-70-1

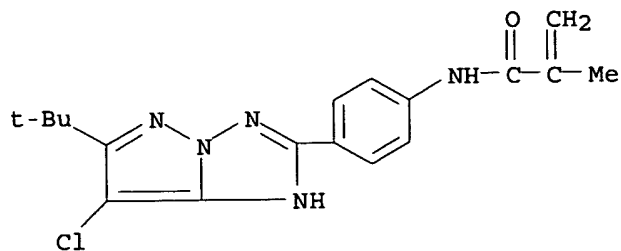
CMF C41 H58 N6 O5



CM 2

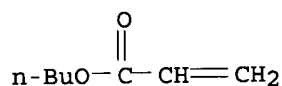
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CRN 189814-79-7
CMF C18 H20 Cl N5 O



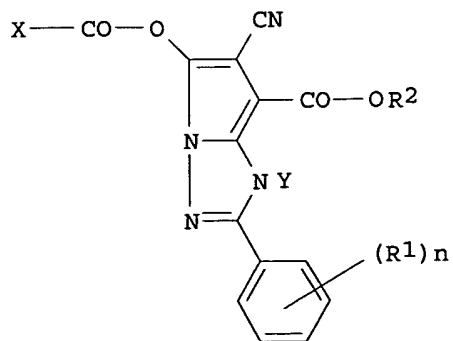
CM 3

CRN 141-32-2
CMF C7 H12 O2

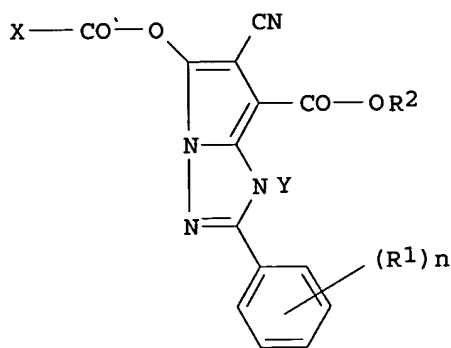


L4 ANSWER 57 OF 66 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:499026 CAPLUS
DOCUMENT NUMBER: 127:197689
TITLE: Silver halide color photographic material
INVENTOR(S): Shimada, Yasuhiro; Shimura, Yoshio; Maeda, Hideki;
Yoneyama, Hiroyuki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09189988	A2	19970722	JP 1996-127717	19960425
PRIORITY APPLN. INFO.: GI			JP 1995-309705	19951106



09963584

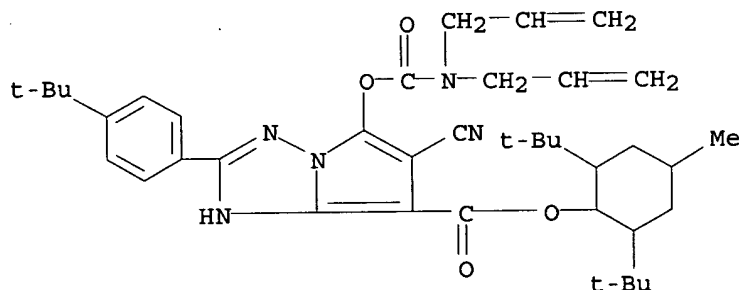


AB The title material comprises a support on which at least one layer contains a coupler represented by I [R1, R2 = aliph. group; X = aryl, etc.; Y = H, substituent; n = 1 or 2]. The title material shows improved hue and good processing stability.

IT 184947-09-9P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (silver halide color photog. material)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 58 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:377400 CAPLUS

DOCUMENT NUMBER: 127:25872

TITLE: Silver halide color photographic material containing pyrrolotriazole derivative cyan coupler

INVENTOR(S): Ito, Takayuki; Matsuda, Naoto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

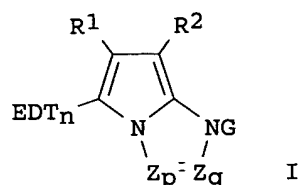
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09080712	A2	19970328	JP 1995-258335	19950912
US 5660975	A	19970826	US 1996-710122	19960912

09963584

PRIORITY APPLN. INFO.:
GI

JP 1995-258335

19950912



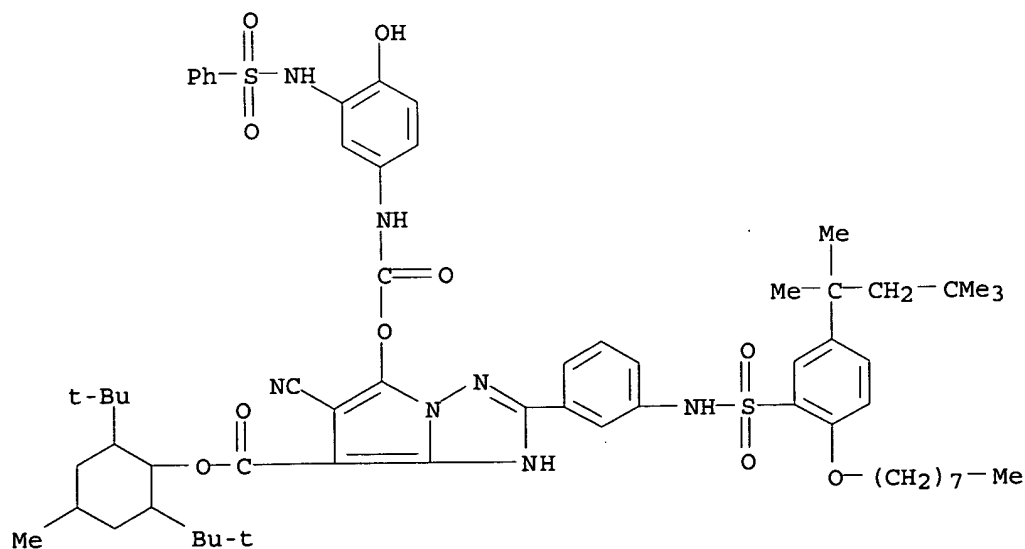
AB The photog. material comprises a support coated with .gtoreq.1 layer contg. a pyrrolo[1,2-b]triazole deriv. cyan coupler I (Zp, Zq = CR3:, N:; Zp .noteq. Zq; R1, R2 = electron-withdrawing group with Hammett's .sigma.p value 0.2-1.0; R3 = substituent; T = releasable connecting group by coupling with oxidant of color developer followed by releasing ED; n = 0, 1; ED = redox-reactive group with oxidant of color developer by releasing from T; G = H, releasable blocking group at development). The material shows good graininess.

IT 189883-41-8 189883-42-9 189883-44-1
189883-45-2 189883-46-3 189883-47-4
189883-48-5

RL: DEV (Device component use); USES (Uses)
(silver halide color photog. material contg. pyrrolo[1,2-b]triazole deriv. cyan coupler showing good graininess)

RN 189883-41-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[4-hydroxy-3-[(phenylsulfonyl)amino]phenyl]amino]carbonyl]oxy]-2-[3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

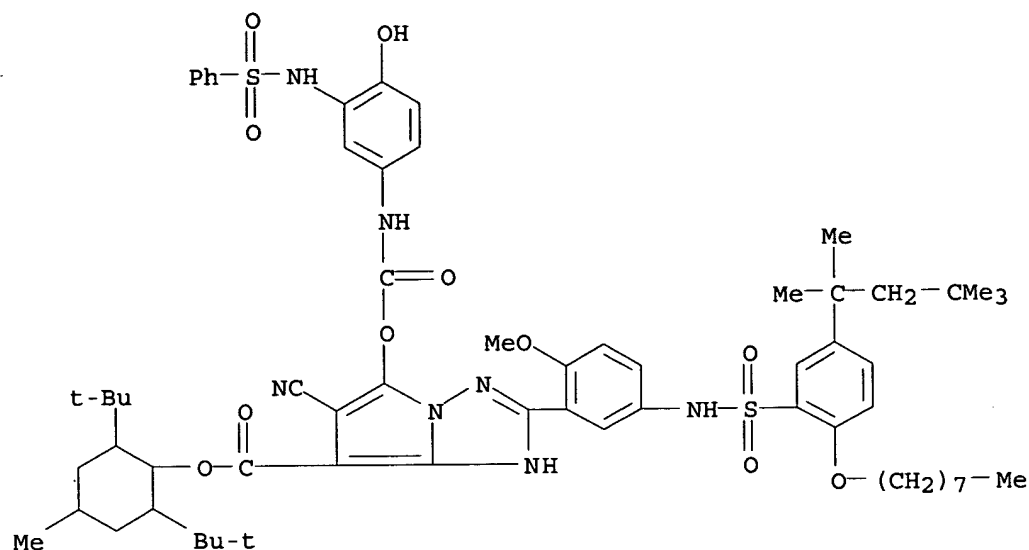


RN 189883-42-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[4-hydroxy-3-[(phenylsulfonyl)amino]phenyl]amino]carbonyl]oxy]-2-[2-methoxy-5-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX

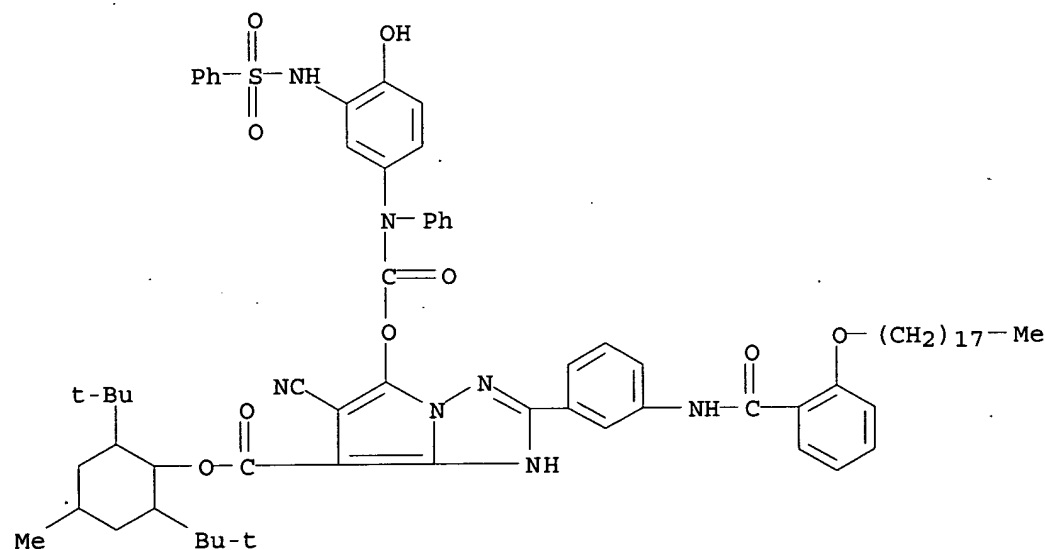
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NAME)



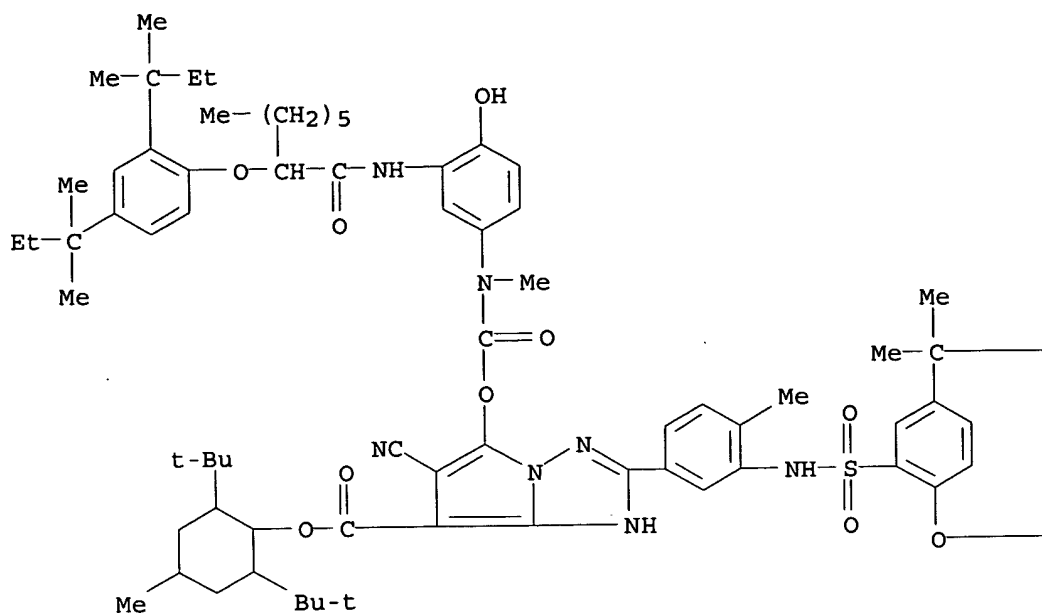
RN 189883-44-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[4-hydroxy-3-[(phenylsulfonyl)amino]phenyl]phenylamino]carbonyl]oxy]-2-[3-[[2-(octadecyloxy)benzoyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 189883-45-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxooctyl]amino]-4-hydroxyphenyl]methylamino]carbonyl]oxy]-6-cyano-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



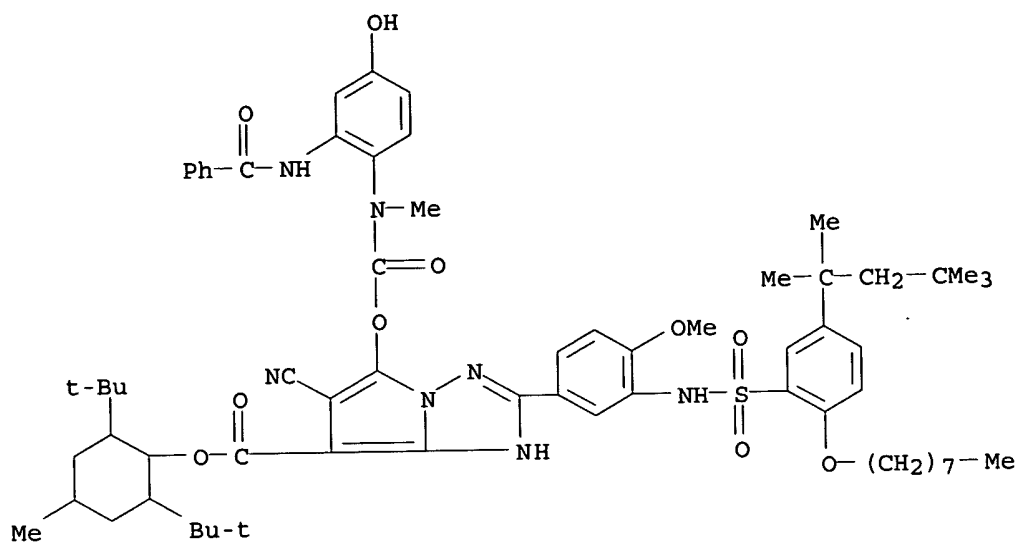
—CH₂—CMe₃ .

—(CH₂)₇—Me

RN 189883-46-3 CAPLUS

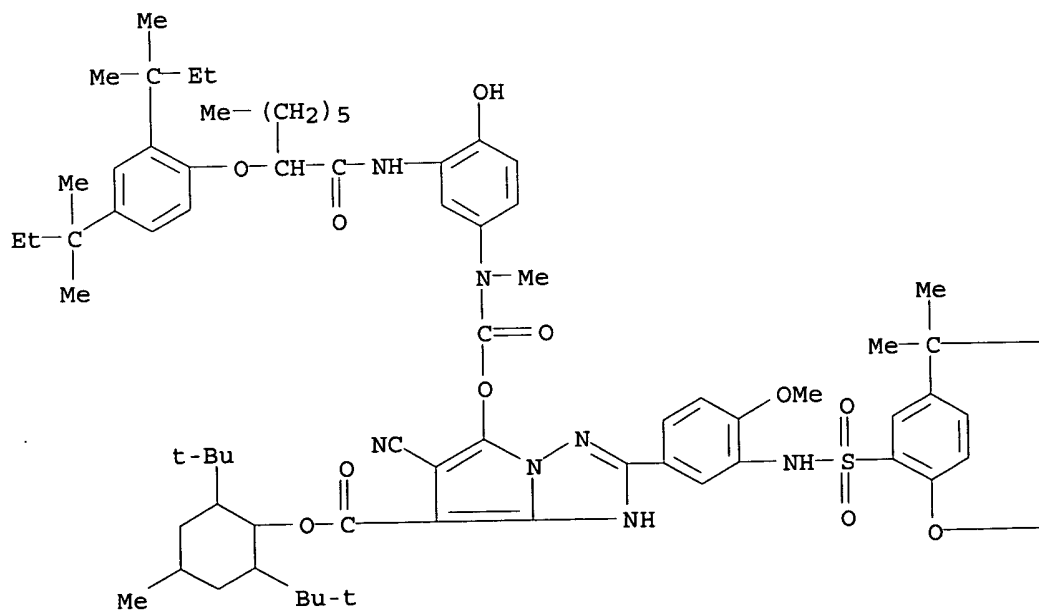
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[2-(benzoylamino)-4-hydroxyphenyl]methylamino]carbonyloxy]-6-cyano-2-[4-methoxy-3-[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

09963584



RN 189883-47-4 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxooctyl]amino]-4-hydroxyphenyl]methylamino]carbonyloxy]-6-cyano-2-[4-methoxy-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

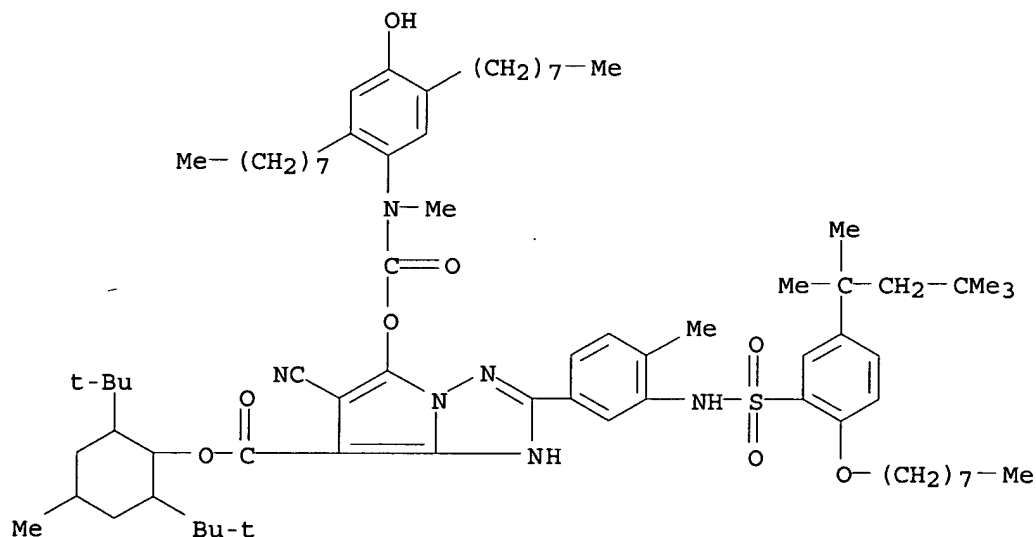


— CH₂— CMe₃

— (CH₂)₇— Me

RN 189883-48-5 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(4-hydroxy-2,5-dioctylphenyl)methylamino]carbonyl]oxy]-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

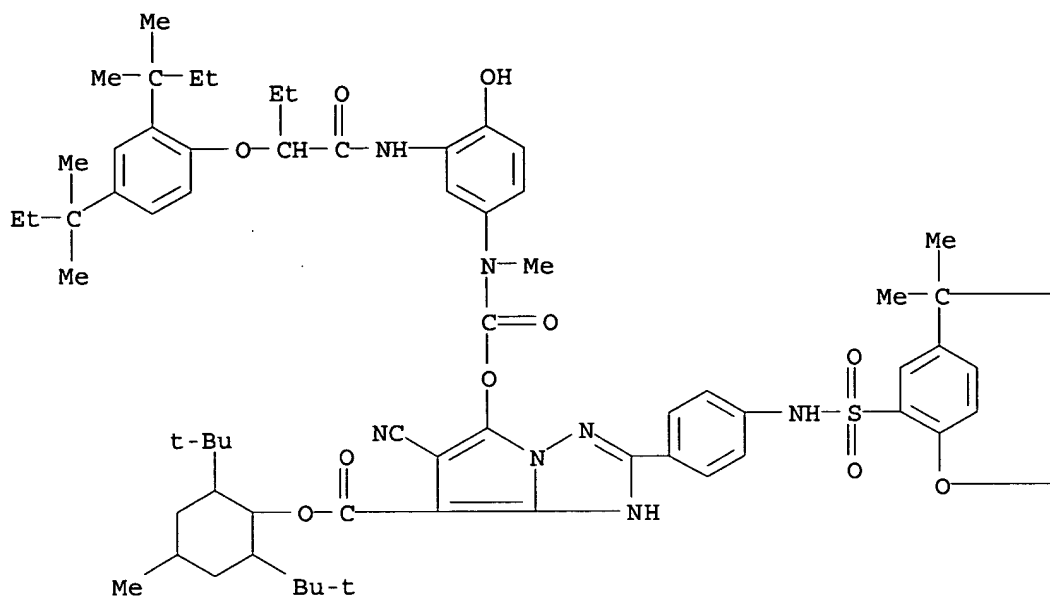


IT 189883-53-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(silver halide color photog. material contg. pyrrolotriazole deriv. cyan coupler showing good graininess)

RN 189883-53-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-4-hydroxyphenyl]methylamino]carbonyl]oxy]-6-cyano-2-[4-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



—CH₂—CMe₃

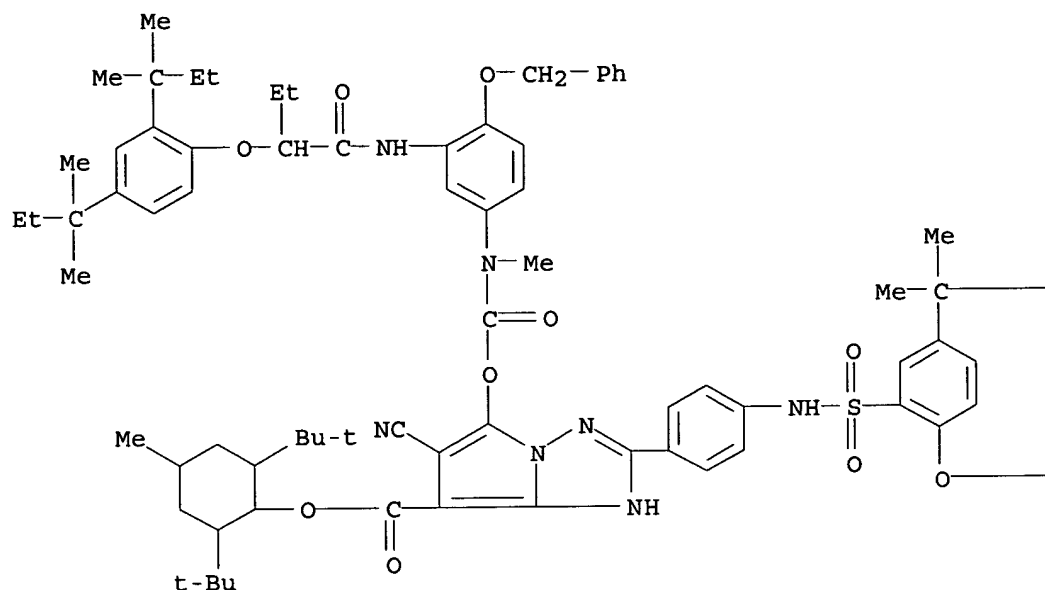
—(CH₂)₇—Me

IT 189883-52-1P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (silver halide color photog. material contg. pyrrolotriazole deriv.
 cyan coupler showing good graininess)

RN 189883-52-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-4-(phenylmethoxy)phenyl]methylamino]carbonyloxy]-6-cyano-2-[4-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



—CH₂—CMe₃

—(CH₂)₇—Me

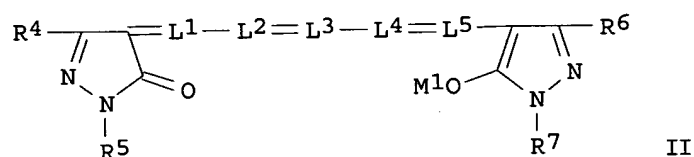
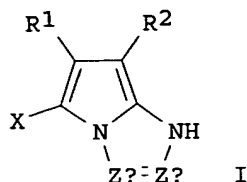
L4 ANSWER 59 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1997:21163 CAPLUS
 DOCUMENT NUMBER: 126:52818
 TITLE: Silver halide photographic photosensitive material and
 image formation
 INVENTOR(S): Yokozawa, Akihito
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

09963584

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08278613	A2	19961022	JP 1995-107869	19950407

GI



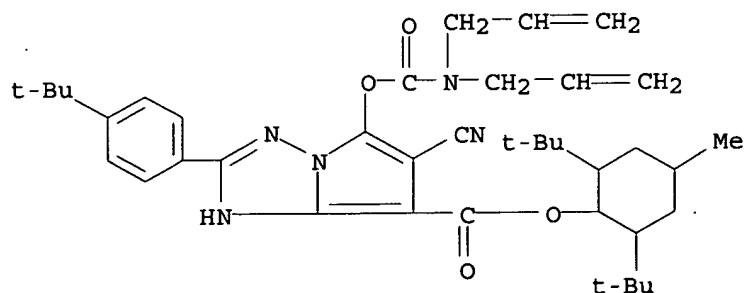
AB The material comprises a support, a photosensitive Ag halide emulsion layer contg. a cyan coupler I [Za = C(R3), N; Zb = C(R3) when Za = N; R1-2 = electron attractive group having Hamett's substitution group value .sigma.p = 0.20-1.0; X = H or group released by coupling reaction with oxidized color developer; R3 = substitution group] and Ag halide emulsion contg. .gtoreq.95 mol% AgCl, and a compd. II (R4, R6 = electron attractive group having .sigma.p .gtoreq.0.3; R5, R7 = alkyl, aryl; L1-5 = methyne; M1 = H, monovalent cation or metal; .gtoreq.1 of L1-5 has a substitution group) in a layer constituting the material. The material is scanning exposed to a light, and then color developing treated. The material can be quickly processed, and has stable color d. during continuously processing.

IT 184947-09-9

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; silver halide photog. photosensitive material contg. pyrazolotriazole cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



09963584

L4 ANSWER 60 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:9345 CAPLUS

DOCUMENT NUMBER: 126:39642

TITLE: Silver halide color photographic material and image formation using it

INVENTOR(S): Ozawa, Takashi; Takizawa, Hiroo; Shimada, Yasuhiro; Ito, Takayuki

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

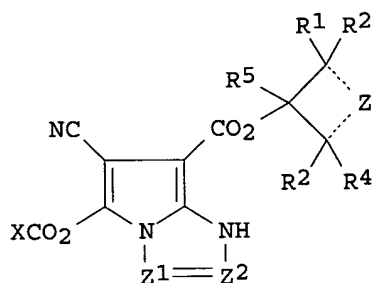
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

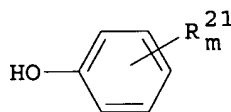
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08262662	A2	19961011	JP 1995-67471	19950327

OTHER SOURCE(S): MARPAT 126:39642

GI



I



II

AB The material contains a cyan coupler I [Z₁ = CR₆, N; when Z₁ = CR₆, Z₂ = N and when Z₁ = N, Z₂ = CR₆; R₁-5 = H, substituent; R₆ = substituent; Z = nonmetal atoms to form (substituted) ring; X = (substituted) amino, aryl, heterocycle] and H-donating compd to form H-bond. The H-donating compd. may be II, R₂₂ANHR₂₃, R₂₄R₂₅NCONHR₂₆, or (R₂₇Op)(R₂₈Oq)P(:O)NHR₂₉ (R₂₁ = substituent; m = 1-5; R₂₂, R₂₅, R₂₇, R₂₈ = aliph. group or aryl; R₂₃, R₂₄, R₂₆, R₂₉ = H, aliph. group, aryl; A = SO₂, CO, OCO; p, q = 0 or 1; the total C no. of the each group is 13-60). The material is imagewise exposed, black-and-white-developed, and processed with a color developing soln. with pH .gtoreq.11 to form an image. The material shows stable coloring properties independent of the compns. of bleaching soln. and provides high quality cyan images with good storage stability.

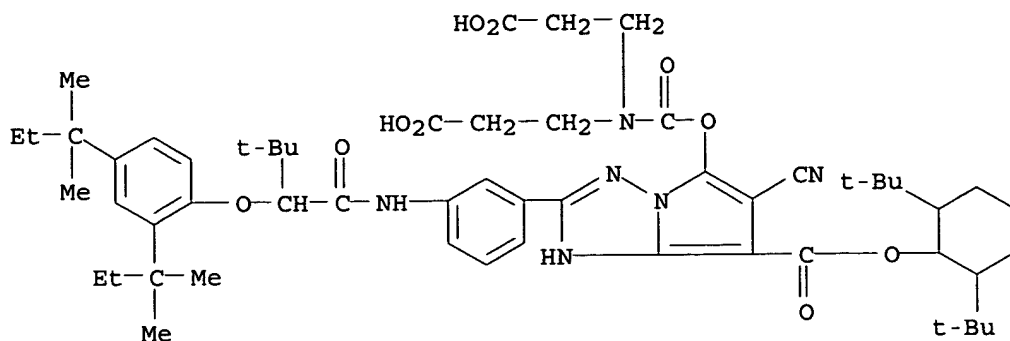
IT 183744-87-8

RL: DEV (Device component use); USES (Uses)
(pyrrolotriazole deriv. photog. cyan coupler)

RN 183744-87-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-carboxyethyl)amino]carbonyl]oxy]-2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-3,3-dimethyl-1-oxobutyl]amino]phenyl]-6-cyano-, 7-[2,6-bis(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)

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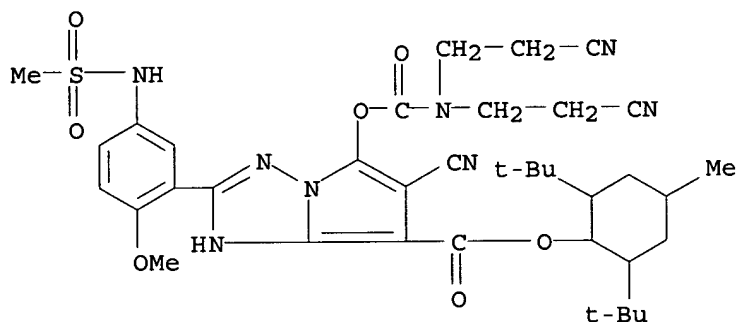


IT 178743-95-8P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(pyrrolo-triazole deriv. photog. cyan coupler)

RN 178743-95-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 61 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:721336 CAPLUS

DOCUMENT NUMBER: 125:342738

TITLE: Silver halide color photographic material containing pyrrolo-triazole cyan couplers and image formation method

INVENTOR(S): Ozawa, Takashi; Shimada, Yasuhiro; Ito, Takayuki

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

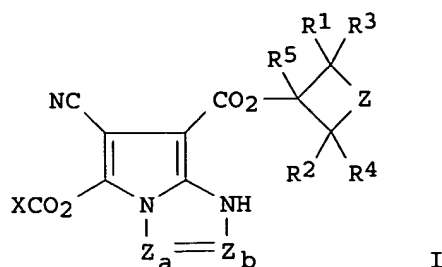
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08227127	A2	19960903	JP 1995-56820	19950222

GI



AB The material comprises a support having thereon .gtoreq.1 the title coupler I [Zb = CR6: when Za =N: or Zb = N: when Za = CR6:; R1-5 = H, substituent; R6 = substituent; Z = (un)substituted nonmetallic at. group to form a ring; X = (un)substituted amino, aryl, heterocyclyl] and .gtoreq.1 non-color-forming diffusion-resistant X1NR5(G)mR2 [II; X1 = NR1R3, OR4; R1 = H, aliph. group, aryl, heterocyclyl; R3-4 = H, aliph. group, aryl, heterocyclyl, cyano, NO2, hydrazino; NR1R3 may be a heterocyclic ring; R5 = H, alkyl, group eliminated under an alk. condition; G = CO, SO2, SO, CONR6, CO2, SO 2NR7, POR8, C(:S), iminomethylene; R6-7 = H, alkyl, aryl; R8 = alkyl, aryl; m = 0-2; II may form oligomers or polymers by linking at the site of R1, R2, or R5]. A method for the image formation by imagewise exposure of the material, followed by black-and-white processing and treatment with a developer with pH .gtoreq.1 is also claimed. The material provides lightfast images with good color reproducibility.

IT 183744-82-3 183744-83-4 183744-85-6

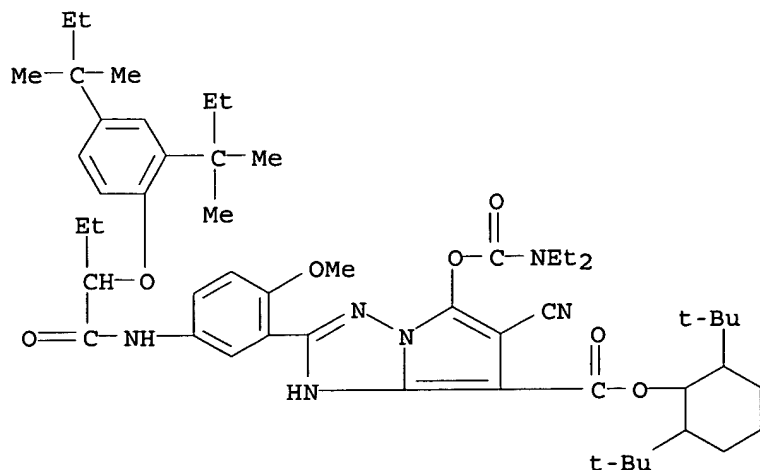
183744-87-8 183744-88-9

RL: DEV (Device component use); USES (Uses)

(photog. material contg. pyrroloazole cyan couplers and diffusion-resistant compds.)

RN 183744-82-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[5-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-2-methoxyphenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)

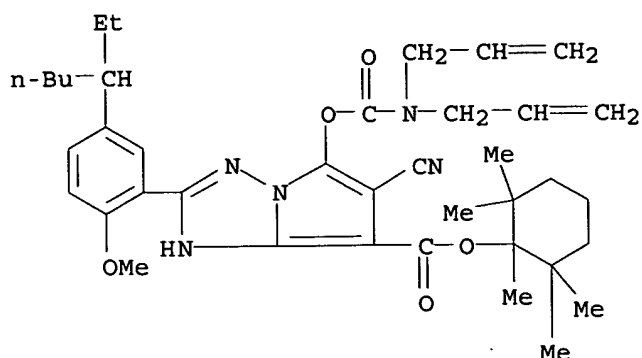


RN 183744-83-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[5-(1-ethylpentyl)-2-methoxyphenyl]-,

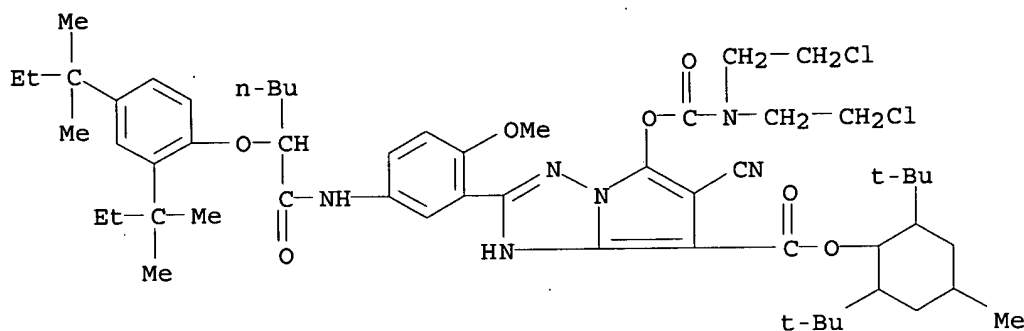
09963584

1,2,2,6,6-pentamethylcyclohexyl ester (9CI) (CA INDEX NAME)



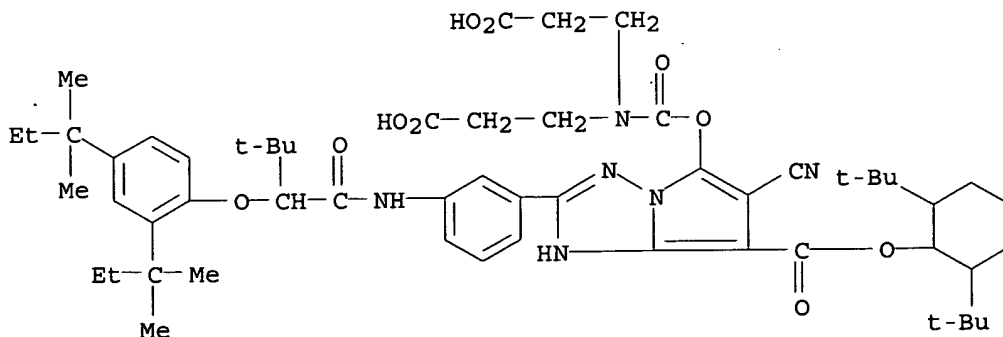
RN 183744-85-6 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-chloroethyl)amino]carbonyl]oxy]-2-[5-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxohexyl]amino]-2-methoxyphenyl]-6-cyano-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 183744-87-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-carboxyethyl)amino]carbonyl]oxy]-2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-3,3-dimethyl-1-oxobutyl]amino]phenyl]-6-cyano-, 7-[2,6-bis(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



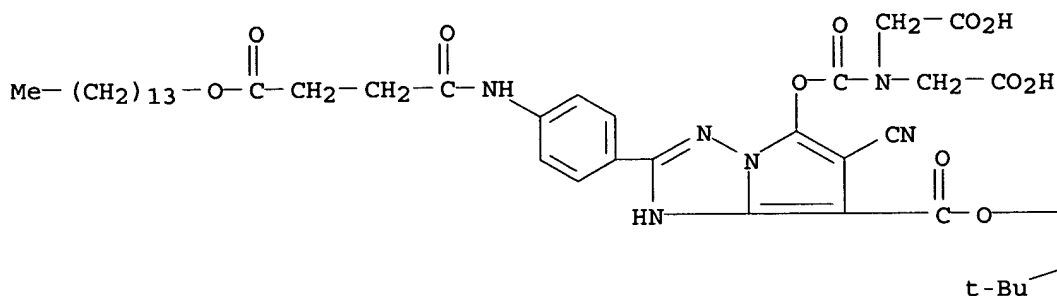
RN 183744-88-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-

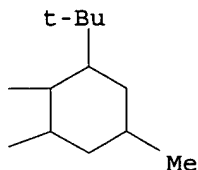
09963584

[[[bis(carboxymethyl)amino]carbonyl]oxy]-6-cyano-2-[4-[[[1,4-dioxo-4-(tetradecyloxy)butyl]amino]phenyl]-, 7-[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

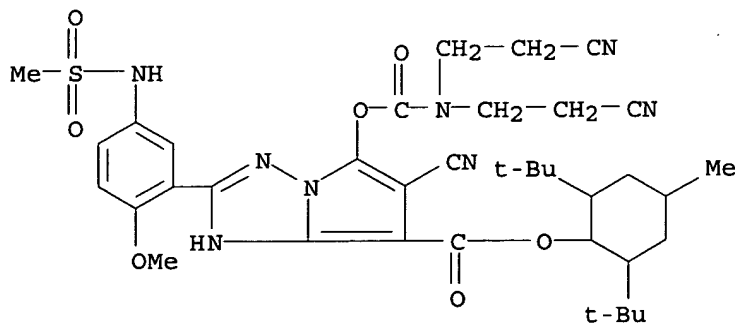


IT 178743-95-8P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(photog. material contg. pyrroloazole cyan couplers and diffusion-resistant compds.)

RN 178743-95-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

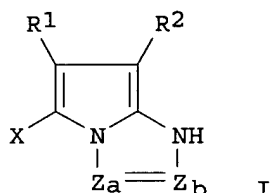


09963584

ACCESSION NUMBER: 1996:664124 CAPLUS
DOCUMENT NUMBER: 125:288719
TITLE: Silver halide color photographic material containing
pyrroloazole cyan coupler and hydrazine compound
INVENTOR(S): Fukuzawa, Yutaka; Nakamura, Takashi; Ono, Michio
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08201999	A2	19960809	JP 1995-27753	19950125
US 5736299	A	19980407	US 1996-590323	19960123
PRIORITY APPLN. INFO.:			JP 1995-25810	19950123
			JP 1995-27753	19950125

GI



AB The photog. material contains a cyan coupler I (Za, Zb = CR₃, N; R1, R2 = electron-attractive group having Hammett's .sigma.p const. 0.20-1.0; R3 = substituent; X = H, leaving group) and a hydrazine compd. (R₂₁NA₂₁NA₂₂)mP(:X)(R₂₂)n (R₂₁ = aryl, heterocyclic group; R₂₂ = alkyl, cycloalkyl, aryl, alkoxy, aryloxy; A₂₁, A₂₂ = H, group leaving with alkali; m = 1, 2, 3; n = 0, 1, 2; m + n = 3; X = S, O). The photog. material shows good storage stability and gives clear color photog. images without spots.

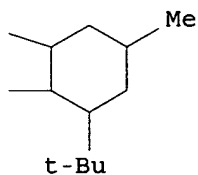
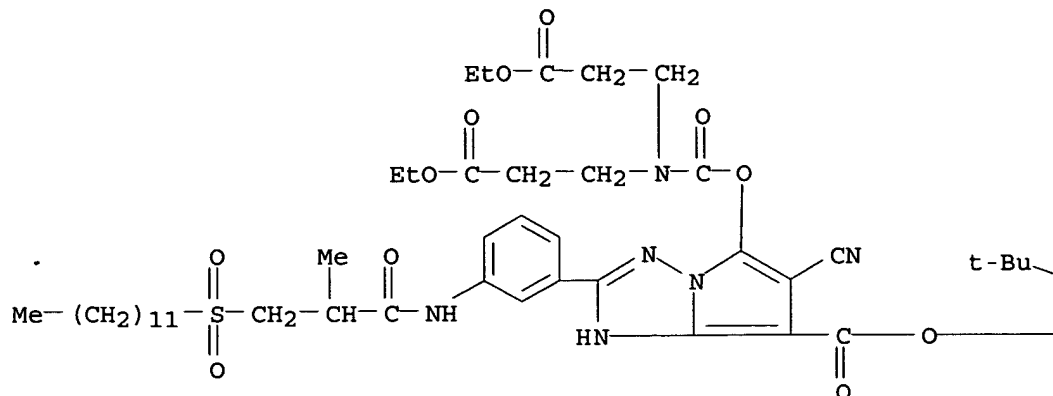
IT 182920-50-9

RL: DEV (Device component use); USES (Uses)

(Ag halide color photog. material contg. pyrroloazole cyan coupler and hydrazine compd.)

RN 182920-50-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-ethoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-[3-[[3-(dodecylsulfonyl)-2-methyl-1-oxopropyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



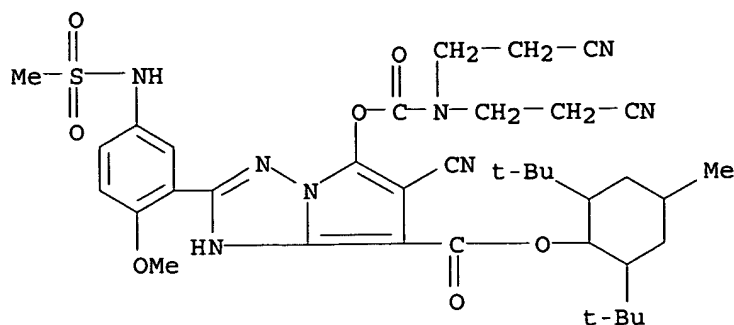
IT 178743-95-8P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(Ag halide color photog. material contg. pyrroloazole cyan coupler and hydrazine compd.)

RN 178743-95-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 63 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:466957 CAPLUS

DOCUMENT NUMBER: 125:114648

TITLE: 1H-pyrrolo[1,2-b][1,2,4]triazole derivatives and their preparation via 1H-1,2,4-triazole derivatives

INVENTOR(S): Ito, Takayuki; Shimada, Yasuhiro; Matsuoka, Koushin

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 63 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 714892	A1	19960605	EP 1995-116130	19951012
R: CH, DE, GB, LI, NL				
JP 08109172	A2	19960430	JP 1994-271869	19941012
PRIORITY APPLN. INFO.:			JP 1994-271869	19941012
OTHER SOURCE(S):			MARPAT 125:114648	

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 1H-pyrrolo[1,2-b][1,2,4]triazole derivs. I [R1 = aliph. group, aryl; R2, R3 = electron-withdrawing group having a Hammett substituent const. σ 0.2-1.0; Y = C(:O)R5, SO2R6, P(:O)R7R8 (R5, R7, R8 = H, aliph. group, aryl, aliph. oxy group, aryloxy, N(Ra')Ra; R7 and R8 may be bonded to each other to form a ring; R6 = aliph. group, aryl, N(Ra')Ra (Ra, Ra' = H, aliph. group, aryl, and Ra and Ra' may be bonded to each other to form a ring))] were efficiently synthesized by using as intermediates 1H-1,2,4-triazole derivs. II (X = halo) and III (R4 = H, aliph. group, aryl). I have pKa values higher by about 1 than those of the corresponding 5-chloro-substituted compds.; I are thermally stable. E.g., reaction of 2-H2NNHCOC6H4OCH2CH2tBu and EtOC(:NH)CH2CO2Et gave IV. IV was sequentially treated with 2,6-di-tert-butyl-4-methylcyclohexanol, pyridinium bromide perbromide, MeO2CCH2CN, then NaOH in aq. MeOH to give V (R = 2,6-di-tert-butyl-4-methylcyclohexyl). Reaction of V and iso-Bu chloroformate gave VI (same R).

IT 164392-58-9P 177984-74-6P 178743-95-8P

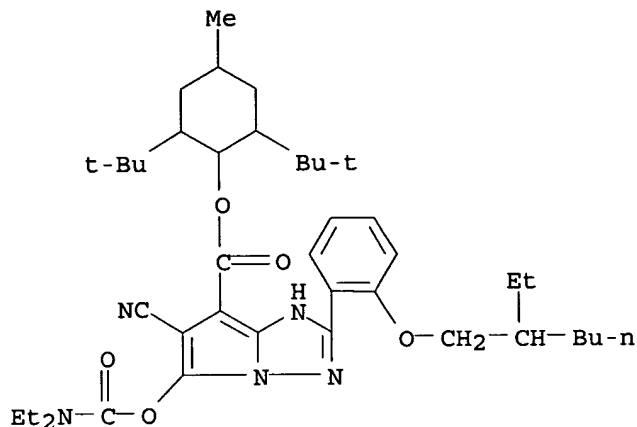
179330-43-9P 179330-47-3P 179330-49-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of 1H-pyrrolo[1,2-b][1,2,4]triazole derivs.)

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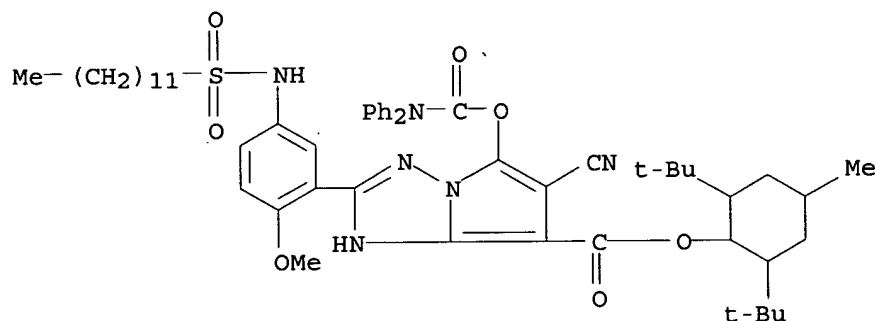
RN 164392-58-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
[[[(diethylamino)carbonyl]oxy]-2-[2-[(2-ethylhexyl)oxy]phenyl]-,
2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 177984-74-6 CAPLUS

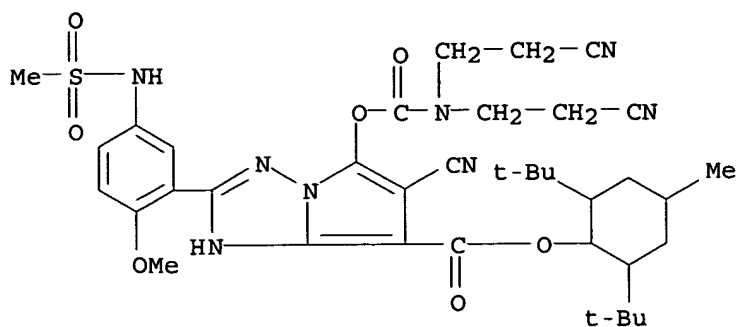
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
[[[(diphenylamino)carbonyl]oxy]-2-[5-[(dodecylsulfonyl)amino]-2-
methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI)
(CA INDEX NAME)



RN 178743-95-8 CAPLUS

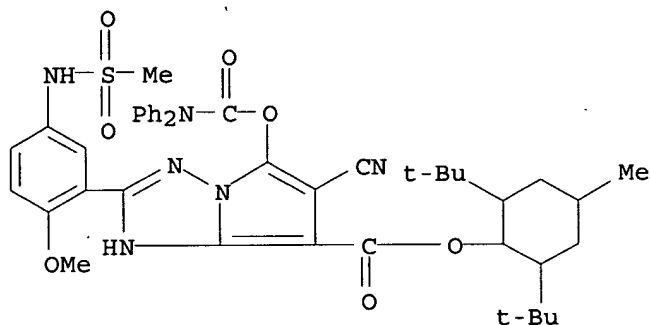
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-
cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-
[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-
methylcyclohexyl ester (9CI) (CA INDEX NAME)

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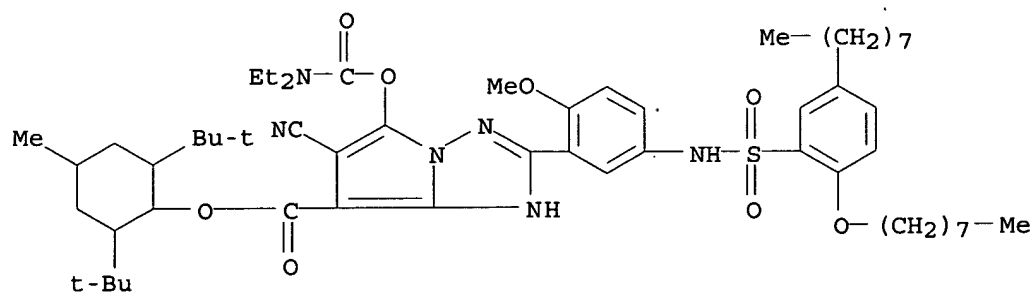
RN 179330-43-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



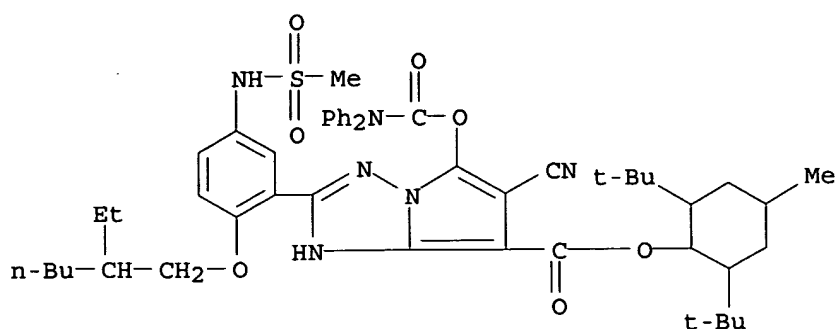
RN 179330-47-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diethylamino)carbonyl]oxy]-2-[2-methoxy-5-[[[5-octyl-2-(octyloxy)phenyl]sulfonyl]amino]phenyl]]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 179330-49-5 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[2-[(2-ethylhexyl)oxy]-5-[(methylsulfonyl)amino]phenyl]]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 64 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:431355 CAPLUS

DOCUMENT NUMBER: 125:99937

TITLE: Silver halide color photographic material

INVENTOR(S): Ito, Takayuki; Shimada, Yasuhiro; Matsuoka, Koushin; Yoshioka, Yasuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 58 pp.

CODEN: EPXXDW

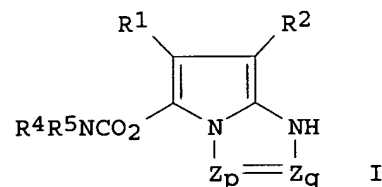
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 710881	A1	19960508	EP 1995-115061	19950925
EP 710881	B1	19980624		
R: DE, FR, GB, NL				
JP 08110623	A2	19960430	JP 1994-271874	19941012
US 5547826	A	19960820	US 1995-532525	19950922
PRIORITY APPLN. INFO.:			JP 1994-271874	19941012
OTHER SOURCE(S):	MARPAT 125:99937			
GI				



AB A silver halide photog. material comprises a support having provided thereon at least one layer contg. a coupler represented by formula I wherein Zp represents -C(R3)= or -N=, provided that when Zp represents -N=, Zq represents -C(R3)= and when Zp represents -C(R3)=, Zq represents -N=; R1 and R2 each represents an electron-withdrawing group having a Hammett's substituent const., σ_p , of from 0.20 to 1.0; R3 represents a substituent; R4 and R5 are the same or different and each represents a hydrogen atom, an aliph. group, an aryl group, or a heterocyclic group and R4 and R5 may combine with each other to form a 5-membered ring or a 6-membered ring and the 5-membered ring or the 6-membered ring and the 5-membered ring or the 6-membered ring may form a condensed ring with a

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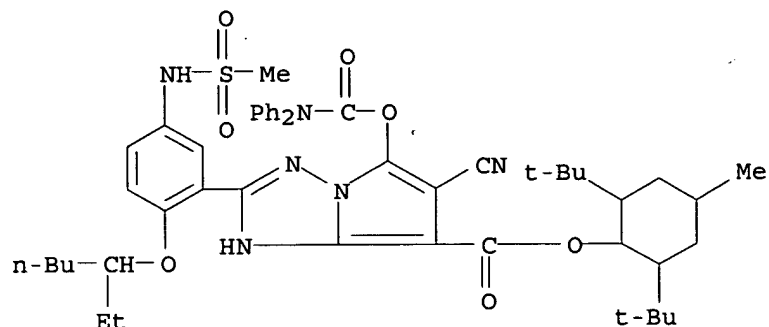
benzene ring or a heterocyclic ring.

IT 178743-96-9 178744-11-1

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. coupler)

RN 178743-96-9 CAPLUS

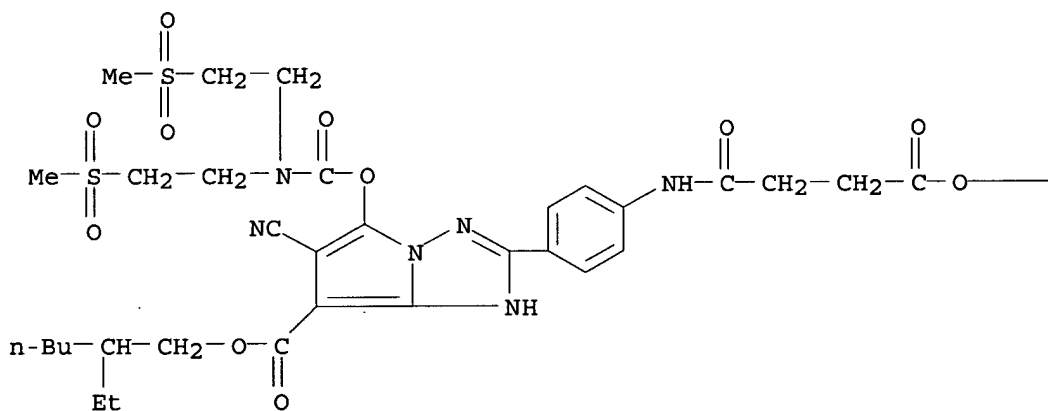
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
[[[(diphenylamino)carbonyl]oxy]-2-[2-[(1-ethylpentyl)oxy]-5-
[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-
methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 178744-11-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis[2-
(methylsulfonyl)ethyl]amino]carbonyl]oxy]-6-cyano-2-[4-[[4-(dodecyloxy)-
1,4-dioxobutyl]amino]phenyl]-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₁₁—Me

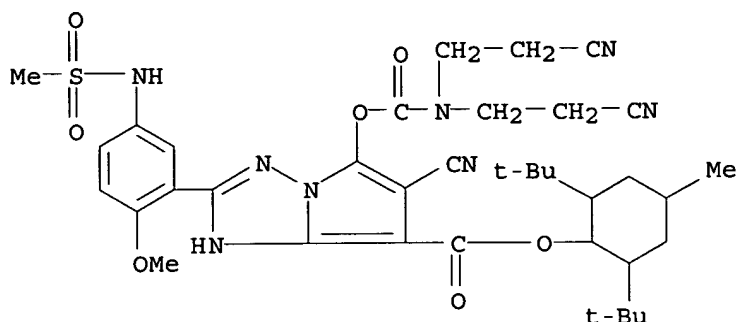
IT 178743-95-8P

09963584

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. and use as photog. coupler)

RN 178743-95-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[2-methoxy-5-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 65 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:379728 CAPLUS

DOCUMENT NUMBER: 125:44970

TITLE: Silver halide color reversing photographic material with superior color reproducibility and sharpness and its processing

INVENTOR(S): Fukagawa, Nobutaka; Kawagishi, Toshio

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 102 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

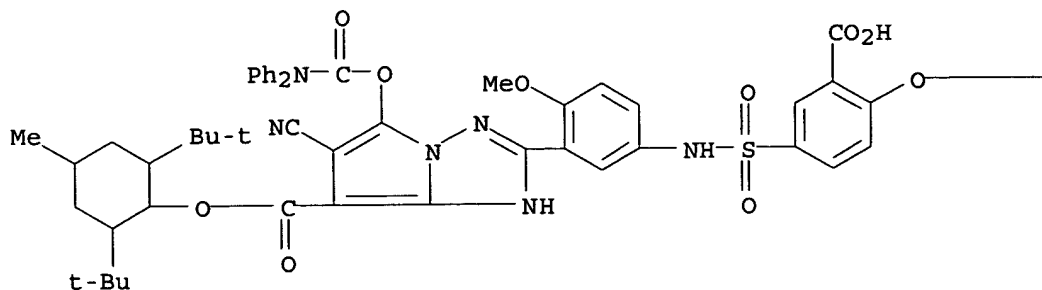
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 08095211	A2	19960412	JP 1994-254115	19940926
AB	In the title full color photog. material, .gtoreq.1 red sensitive layer contains a 5-5-membered or a 5-6-membered condensed N-contg. heterocyclic cyan coupler, or .gtoreq.1 blue-sensitive layer contains an indoline yellow coupler, and .gtoreq.1 layer contains compd. A-{(L1)a-(B)m}p-(L2)n-DI (A, B = releasing group upon reacting with an oxidized arom. primary amine developer; L1, L2 = releasing group; DI = development suppressor of suppressing strength .gtoreq.1 and .ltoreq.5; a, m, n = 0, 1; p = 0-2). Processing the photog. material includes exposing, black-and-white developing, fogging the unexposed Ag halide particles and color developing.				
IT	177984-72-4 177984-73-5 177984-74-6				
	RL: DEV (Device component use); USES (Uses) (cyan coupler for color reversing photog. film)				
RN	177984-72-4 CAPLUS				
CN	1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[5-[[[3-carboxy-4-(octyloxy)phenyl]sulfonyl]amino]-2-methoxyphenyl]-6-cyano-5-[[[diphenylamino]carbonyl]oxy]-, 7-[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl] ester (9CI) (CA INDEX NAME)				

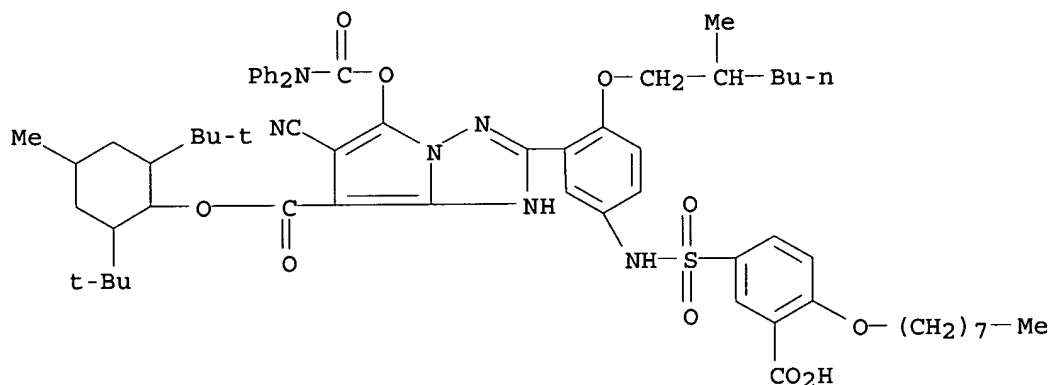
PAGE 1-A



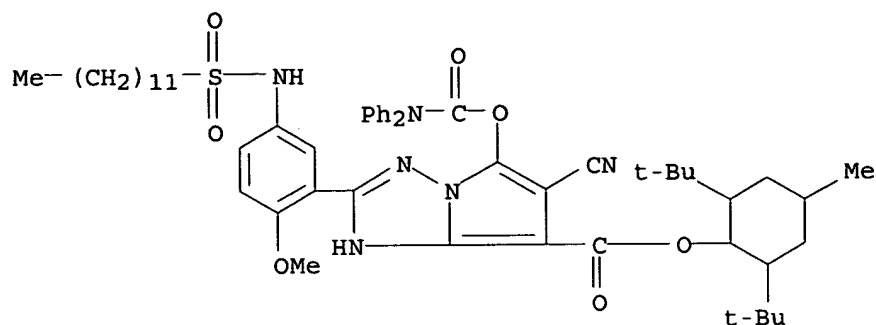
PAGE 1-B

— (CH₂)₇—Me

RN 177984-73-5 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[5-[[[3-carboxy-4-(octyloxy)phenyl]sulfonyl]amino]-2-[(2-methylhexyl)oxy]phenyl]-6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-, 7-[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl] ester (9CI) (CA INDEX NAME)



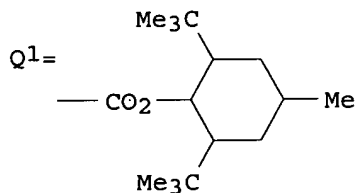
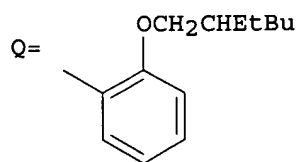
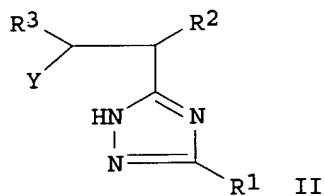
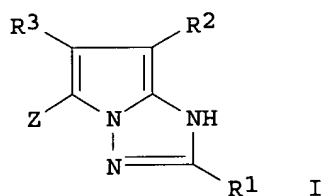
RN 177984-74-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diphenylamino)carbonyl]oxy]-2-[5-[(dodecylsulfonyl)amino]-2-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 66 OF 66 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1995:652357 CAPLUS
 DOCUMENT NUMBER: 123:55892
 TITLE: Method for preparation of 1H-pyrrolo[1,2-b][1,2,4]triazole derivative
 INVENTOR(S): Ito, Takayuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07048376	A2	19950221	JP 1993-212194	19930804
JP 3274555	B2	20020415		

OTHER SOURCE(S): CASREACT 123:55892; MARPAT 123:55892
 GI



AB The title compds. [I; R1 = alkyl, aryl; R2, R3 = electron-withdrawing group having a Hammett σ_p value of 0.2-1.0; Y = group which is condensed with the triazole in the mol. and is capable of forming a 1H-pyrrolo[1,2-b][1,2,4]triazole ring; Z = group which is formed as the result of the intramol. condensation of Y with the triazole ring, in particular Z = OR4; wherein R4 = COR41, CO2R42, CONR43R44, SO2R45,

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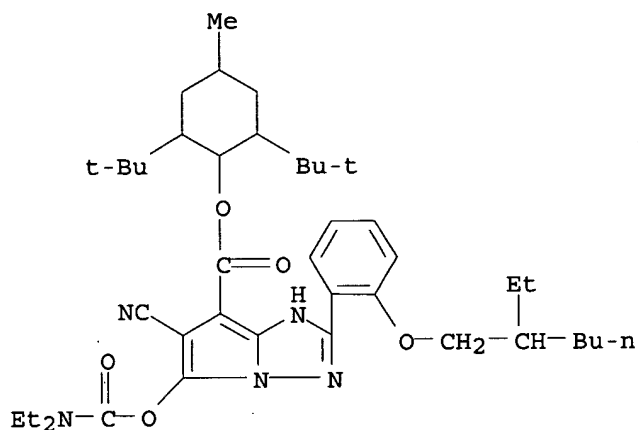
P(O)R46R47; R41 - R45 = H, alkyl, aryl; R46, R47 = H, alkyl, aryl, alkoxy, aryloxy] are prepd. by cyclocondensation of triazole derivs. (R1, R2, R3, Y = same as above) with an acyl halide, in particular R4X (R4 = same as above; X = halo) in the presence of a base. These compds. I are useful as intermediates for biol. active compds. such as pharmaceuticals and agrochems., photog. couplers, various dyes, and dyes for thermal transfer dye-yielding material. Thus, iso-Bu chloroformate and Et3N were successively added dropwise to a soln. of 3-(2-carboxyethyl)-1,2,4-triazole deriv. (R1 = Q, R2 = Q1, R3 = cyano, Y = HO2C) in EtOAc at 0.degree. and the resulting mixt. was allowed to react at 0.degree. for 15 min to give I (Z = iso-BuO2CO, R1 = Q, R2 = Q1, R3 = cyano).

IT 164392-58-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 1H-pyrrolo[1,2-b][1,2,4]triazole deriv. by cyclocondensation of (carboxyethyl)pyrrolo[1,2-b][1,2,4]triazole derivs. with acyl halides)

RN 164392-58-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diethylamino)carbonyl]oxy]-2-[2-[(2-ethylhexyl)oxy]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



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NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
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NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
NEWS 33 Nov 25 More calculated properties added to REGISTRY
NEWS 34 Dec 02 TIBKAT will be removed from STN
NEWS 35 Dec 04 CSA files on STN

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CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
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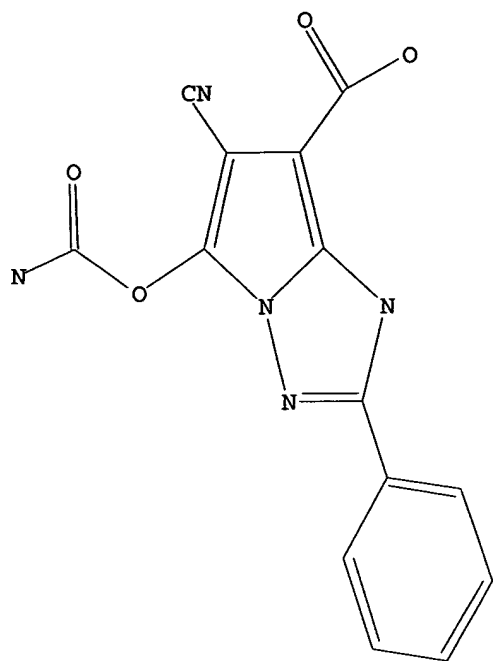
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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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PROJECTED ANSWERS: 5 TO 234

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100.0% PROCESSED 291 ITERATIONS
SEARCH TIME: 00.00.01

106 ANSWERS

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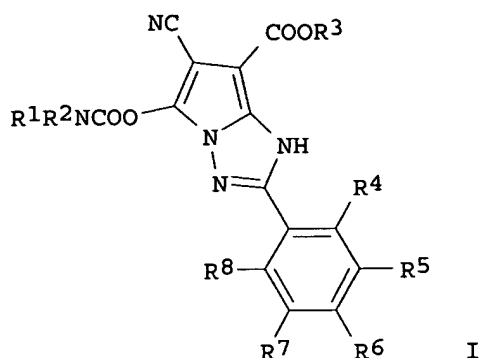
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L5 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:253081 CAPLUS
DOCUMENT NUMBER: 136:286530
TITLE: Silver halide color photographic paper comprising
pyrrolotriazole compound as cyan dye-forming
coupler
INVENTOR(S): Nakamine, Takeshi; Deguchi, Yasuaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1193548	A2	20020403	EP 2001-122625	20010927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002174885	A2	20020621	JP 2001-121827	20010419
CN 1347010	A	20020501	CN 2001-141872	20010921
US 2002076664	A1	20020620	US 2001-963584	20010927
PRIORITY APPLN. INFO.:			JP 2000-297536	A 20000928
OTHER SOURCE(S):		MARPAT 136:286530		
GI				



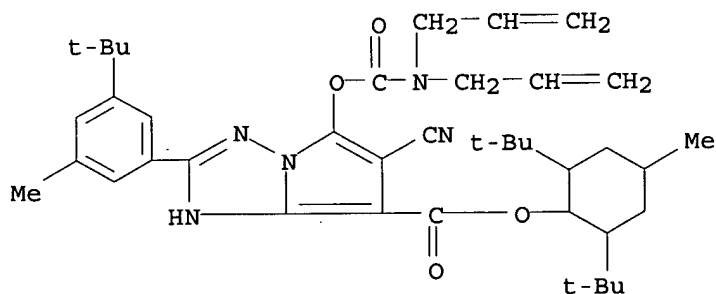
AB Disclosed is a silver halide color photog. light-sensitive material comprising the pyrrolotriazole cyan coupler of the formula I (R1, R2 = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic; R1 and R2 may bond together to form a 5- or 6-membered nitrogen-contg. heterocycle; R3 = alkyl, cycloalkyl, alkenyl group; R5 = alkyl, aryl; R4, R6, R7 and R8 = H, or a substituent, with the proviso that at least one of R4, R6, R7 and R8 is a substituent, and that two groups of R4 to R8, which adjoin each other, do not bond together to form any ring). The present inventive couplers provide less contamination due to magenta or yellow in cyan color and excellent cyan hue.

IT 405922-45-4P 405922-48-7P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation) (cyan coupler; silver halide color photog. paper comprising pyrrolotriazole compd. as cyan dye-forming coupler)

RN 405922-45-4 CAPLUS

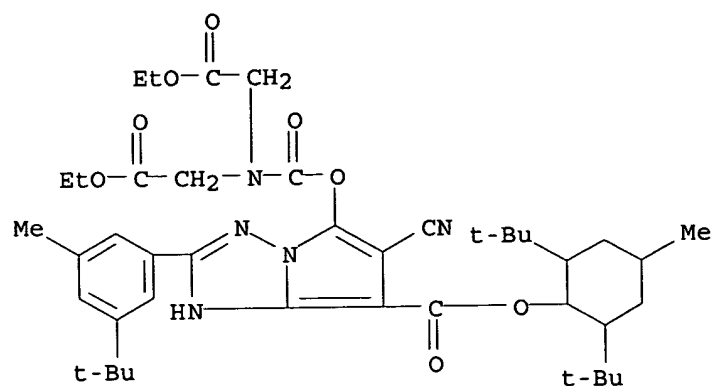
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-48-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-ethoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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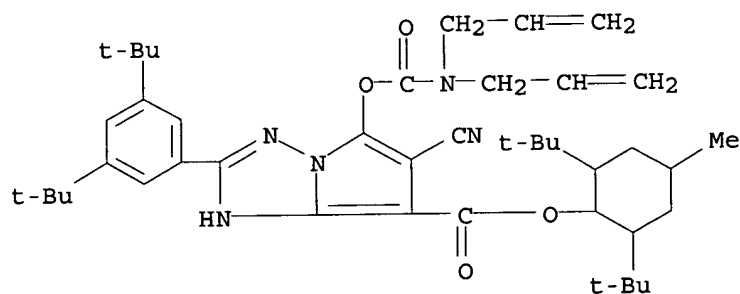


IT 405922-31-8P 405922-32-9P 405922-33-0P
405922-34-1P 405922-49-8P

RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyan coupler; silver halide color photog. paper comprising pyrrolo-triazole compd. as cyan dye-forming coupler)

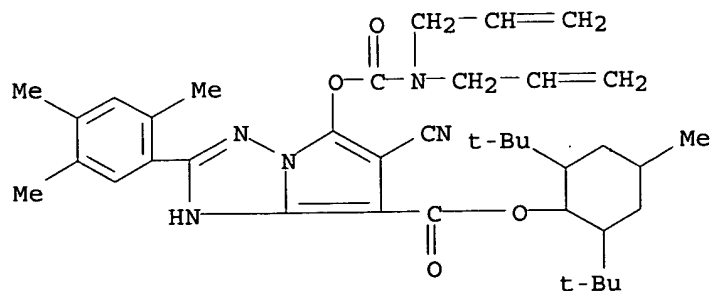
RN 405922-31-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3,5-bis(1,1-dimethylethyl)phenyl]-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-32-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-(2,4,5-trimethylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

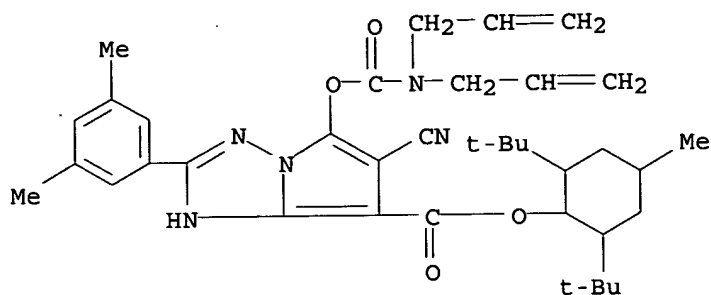


RN 405922-33-0 CAPLUS

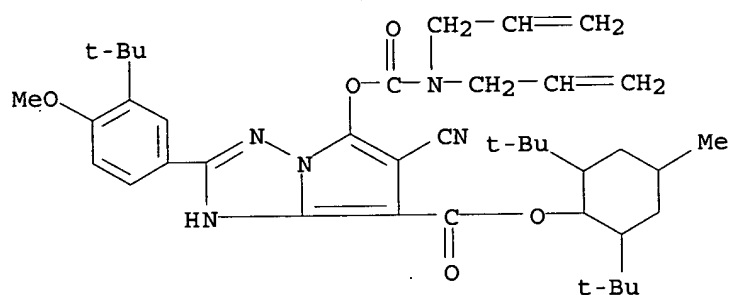
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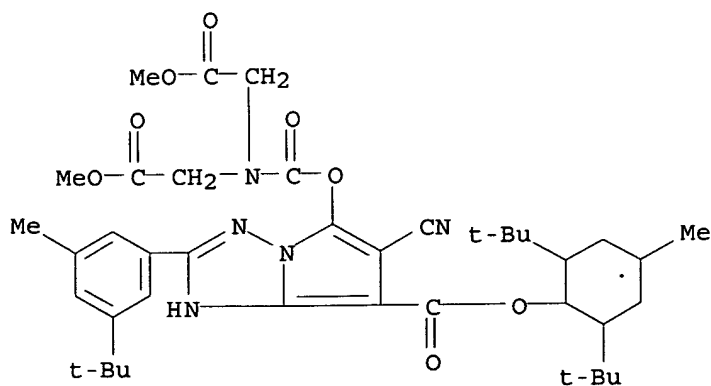
dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-,
2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-34-1 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-(1,1-dimethylethyl)-4-methoxyphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-49-8 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



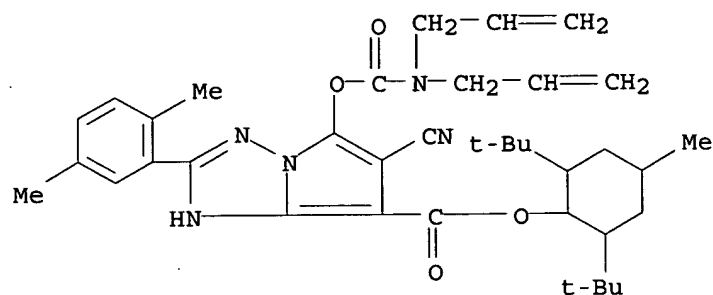
IT 405922-30-7P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

09963584

(cyan coupler; silver halide color photog. paper comprising
pyrrolotriazole compd. as cyan dye-forming coupler)

RN 405922-30-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,5-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



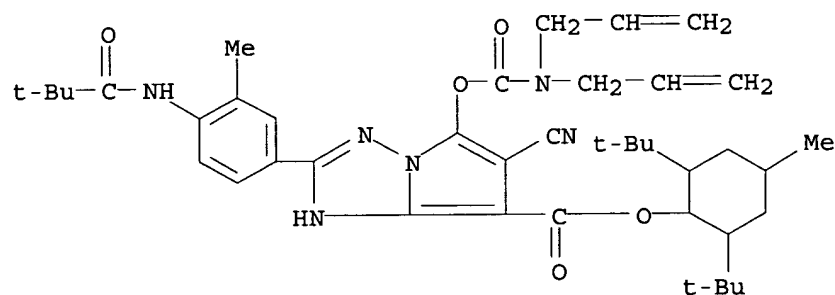
IT 405922-37-4 405922-40-9 405922-42-1

405922-43-2 405922-47-6

RL: TEM (Technical or engineered material use); USES (Uses)
(cyan coupler; silver halide color photog. paper comprising
pyrrolotriazole compd. as cyan dye-forming coupler)

RN 405922-37-4 CAPLUS

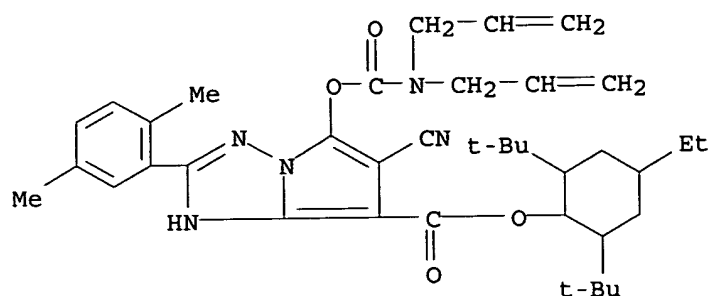
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-[(2,2-dimethyl-1-oxopropyl)amino]-3-methylphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-40-9 CAPLUS

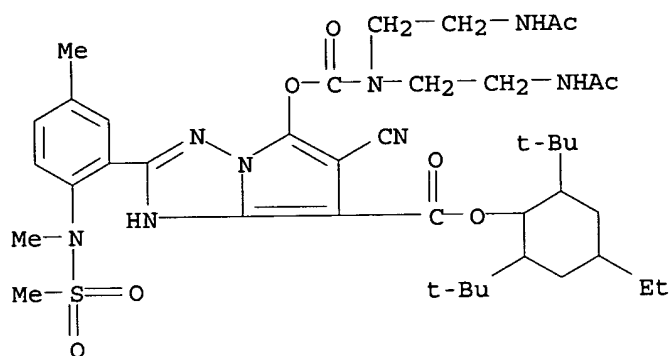
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(2,5-dimethylphenyl)-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-ethylcyclohexyl ester (9CI) (CA INDEX NAME)

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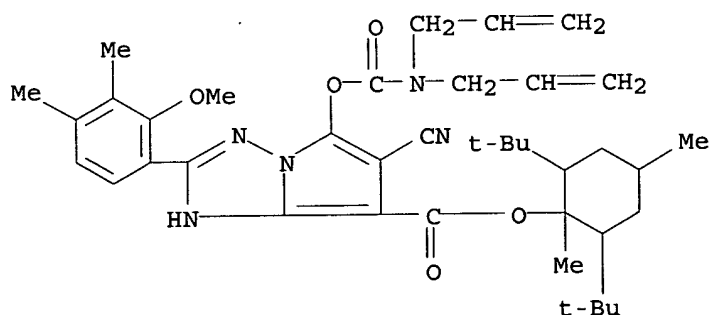
RN 405922-42-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-(acetylamino)ethyl)amino]carbonyl]oxy]-6-cyano-2-[5-methyl-2-[methyl(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-ethylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-43-2 CAPLUS

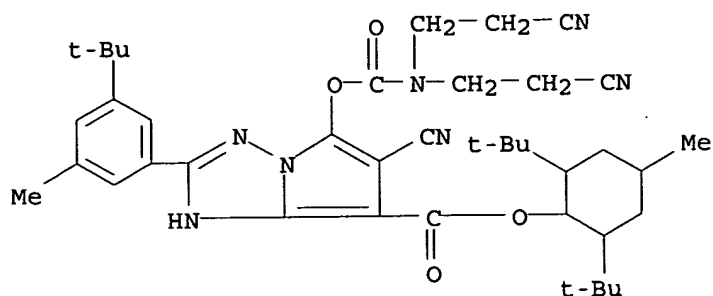
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[di-2-propenylamino]carbonyl]oxy]-2-(2-methoxy-3,4-dimethylphenyl)-, 2,6-bis(1,1-dimethylethyl)-1,4-dimethylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 405922-47-6 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-(1,1-dimethylethyl)-5-methylphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

09963584



L5 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:729888 CAPLUS

DOCUMENT NUMBER: 135:296113

TITLE: Silver halide color photographic light-sensitive material, pyrrolotriazole compound and dye-forming compound

INVENTOR(S): Nakamine, Takeshi; Seto, Nobuo; Sato, Hideaki; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 60 pp.

CODEN: EPXXDW

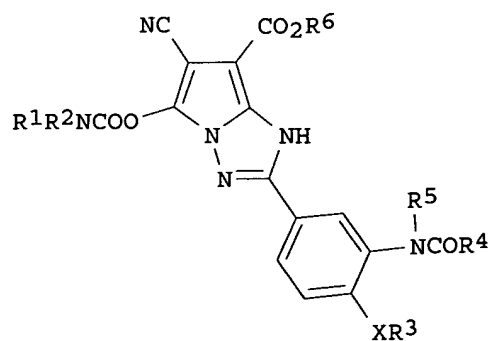
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1139170	A2	20011004	EP 2001-107448	20010327
EP 1139170	A3	20020515		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001342189	A2	20011211	JP 2000-221434	20000721
US 2002031736	A1	20020314	US 2001-816246	20010326
CN 1320838	A	20011107	CN 2001-110042	20010327
PRIORITY APPLN. INFO.:			JP 2000-87451	A 20000327
			JP 2000-221434	A 20000721
OTHER SOURCE(S):		MARPAT 135:296113		
GI				



I

AB The present invention provides a pyrrolotriazole compd. I (R_{1,2} = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic group; R₁ and R₂ may bond together to form 5-6 membered nitrogen-contg. heterocycle; R₃ = alkyl, cycloalkyl, alkenyl, aryl or heterocyclic group; R₄ = alkyl, cycloalkyl, alkenyl, alkoxy or amino group; R₅ = H, alkyl or aryl group; R₆ = alkyl, cycloalkyl or alkenyl group; and X = O, or S), and a silver halide color photog. light-sensitive material contg. the pyrrolotriazole compd. as a cyan coupler.

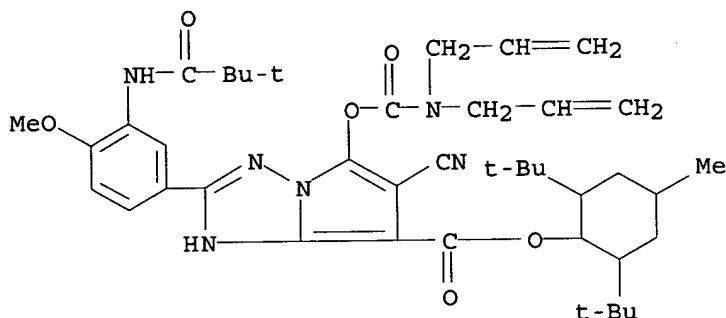
IT 364379-18-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pyrrolotriazole compd. as photog. cyan coupler)

RN 364379-18-0 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-methoxyphenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

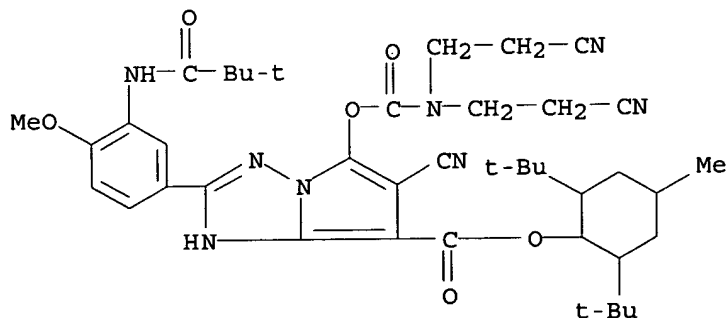


IT 364379-19-1 364379-20-4 364379-29-3
364379-31-7 364379-32-8 364379-33-9
364379-34-0

RL: TEM (Technical or engineered material use); USES (Uses)
(pyrrolotriazole compd. as photog. cyan coupler)

RN 364379-19-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

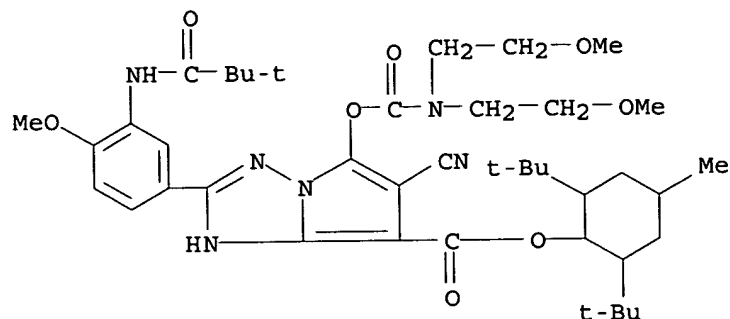


RN 364379-20-4 CAPLUS

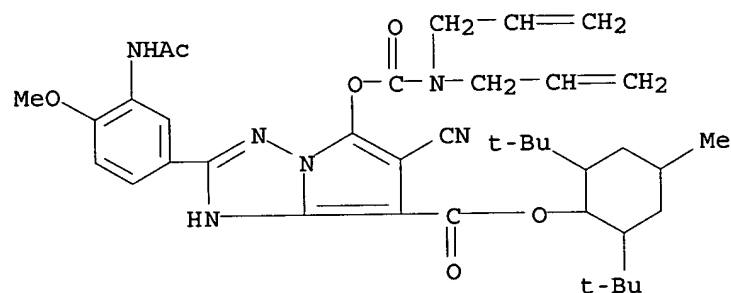
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-

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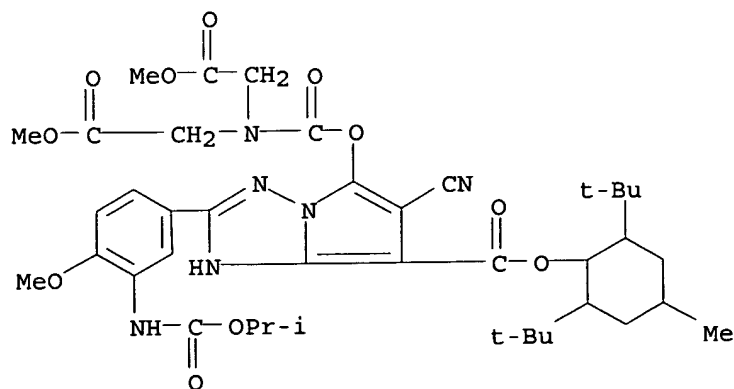
methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[3-[(2,2-dimethyl-1-oxopropyl)amino]-4-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-29-3 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-(acetylamino)-4-methoxyphenyl]-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



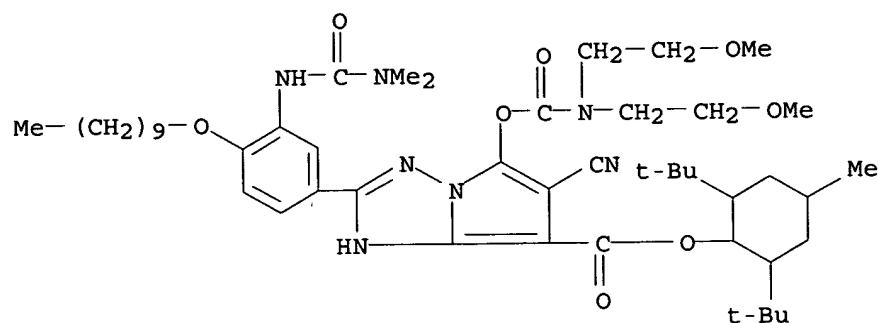
RN 364379-31-7 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-methoxy-3-[[[(1-methylethoxy)carbonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-32-8 CAPLUS

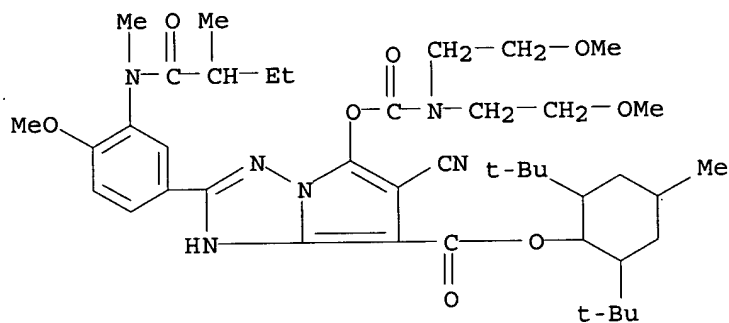
09963584

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[4-(decyloxy)-3-[[dimethylamino]carbonyl]amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



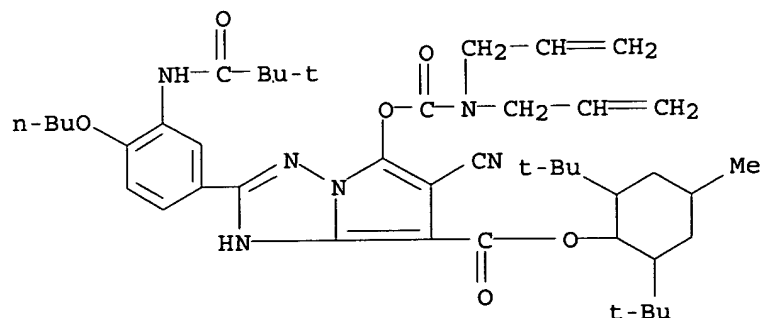
RN 364379-33-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-methoxyethyl)amino]carbonyl]oxy]-6-cyano-2-[4-methoxy-3-[methyl(2-methyl-1-oxobutyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 364379-34-0 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[4-butoxy-3-[(2,2-dimethyl-1-oxopropyl)amino]phenyl]-6-cyano-5-[[[di(2-propenyl)amino]carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:603685 CAPLUS

DOCUMENT NUMBER: 135:172950

TITLE: Silver halide color photographic material, color fading-resistant agent, and dye-association inhibitor

INVENTOR(S): Seto, Nobuo; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

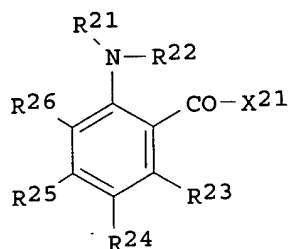
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

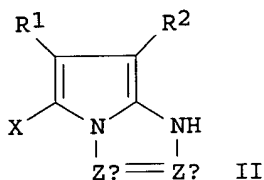
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001226608	A2	20010821	JP 2000-36443	20000215

OTHER SOURCE(S): MARPAT 135:172950
GI



I



II

AB The invention relates to a color photog. material which contains a compd. represented by I (R21 = H, aliph.; R22 = acyl, aliph. sulfonyl, arylsulfonyl, carbamoyl; X21 = aliph. oxy, amino, aliph. amino, arylamino; R2326 = H, substituent) as a color fading-resistant agent or as a dye-assocn. inhibitor. The photog. material contains a cyan coupler represented by II (Za, Zb = -C(R3):, -N:; R1, R2 = electron withdrawing group having Hammett substituent const. .sigma.p of .gtoreq.0.20; R3 = H, substituent; X = H, group capable of cleaving upon coupling with oxidized color developing agent) together with the above compd. in the same layer. The photog. material shows improved color reprodn., color fading-resistance, and color d.

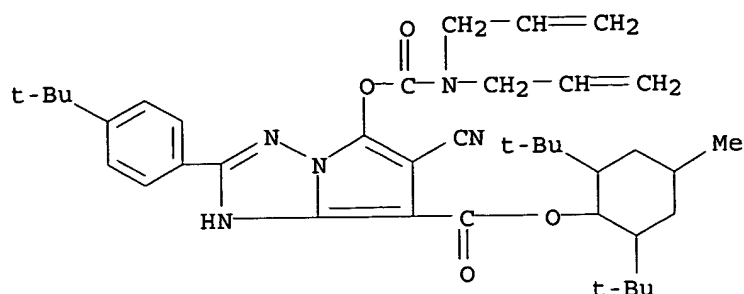
IT 184947-09-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(cyan coupler prepn.; color photog. material contg. color fading-resistant agent or dye-assocn. inhibitor together with cyan coupler to improve color reprodn. and color fading-resistance)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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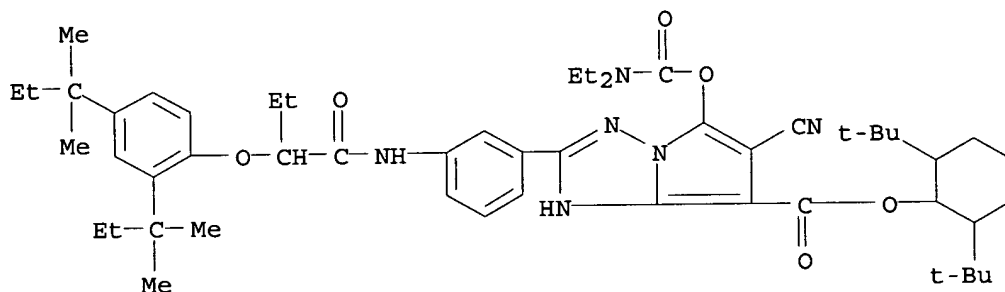


IT 200137-20-8

RL: DEV (Device component use); USES (Uses)
(cyan coupler; color photog. material contg. color fading-resistant agent or dye-assocn. inhibitor together with cyan coupler to improve color reprodn. and color fading-resistance)

RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:624780 CAPLUS

DOCUMENT NUMBER: 133:215420

TITLE: Silver halide color photographic material with high sharpness

INVENTOR(S): Takata, Kiyoto; Kimura, Keizo; Takahashi, Osamu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 98 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

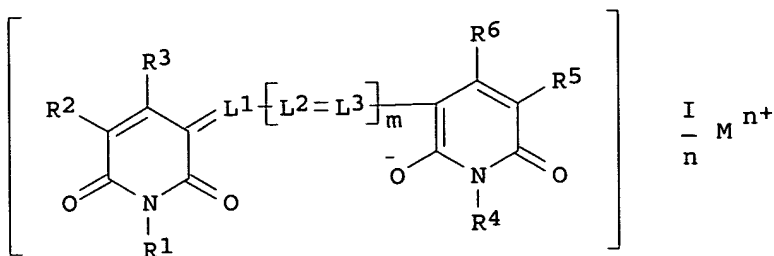
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000241936	A2	20000908	JP 1999-358018	19991216
PRIORITY APPLN. INFO.:			JP 1998-363003	A 19981221
OTHER SOURCE(S):		MARPAT 133:215420		

GI



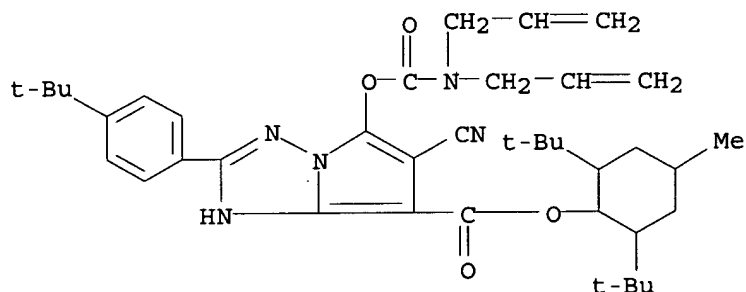
AB The title photog. material, possessing .gtoreq.3 photosensitive hydrophilic colloid layers contg. each of yellow, magenta, and cyan dye-forming couplers and Ag halide emulsion grains different in color sensitivity from each other and .gtoreq.1 non-photosensitive hydrophilic colloid layers on a transparent support, contains a compd. I (R1, R4 = H, aliph., arom. or heterocyclic group, NR7R8, NR7CONR7R8, NR8COR9, NR8SO2R9; R2, R5 = H, aliph., arom. or heterocyclic group, CN, sulfo, NR7R8, NR8COR9, NR8SO2R9, NR7CONR7R8, CO2R7, CONR7R8, COR9, SO2R9, SO2NR7R8; R3, R6 = OR7, CO2R7, COR9, CONR7R8, NR7R8, NR8COR9, NR8SO2R9, NR7CONR7R8, SO2R9, SO2NR7R8, CN; R7, R8 = H, aliph. or arom. group; R9 = aliph. or arom. group, R7 and R8 or R8 and R9 may link each other to form a 5- or 6-membered ring; L1-3 = methine; m = 0-2; Mn+ = cation with n valence; n = 1-3) in 1 of these layers and a solid fine particle dispersion of a dye DXy (D = chromophore-contg. group; X = dissocg. H or a compd. having dissocg. H; y = 1-7) in .gtoreq.1 of the non-photosensitive layers and the pH value of the coating of the material is 4.6-6.4. The material shows high sharpness and environmental stability upon exposure and is capable of simplifying the processing.

IT 184947-09-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(triazole deriv. photog. cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:787757 CAPLUS

DOCUMENT NUMBER: 132:28628

TITLE: Silver halide color photographic material using novel pyrrolotriazole-type cyan coupler

INVENTOR(S): Yoshioka, Yasuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.

09963584

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

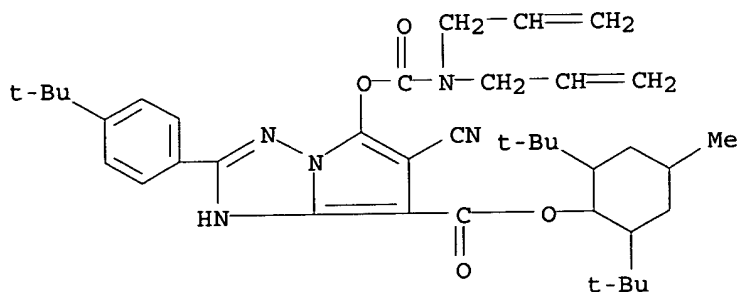
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11344793	A2	19991214	JP 1998-169303	19980602

OTHER SOURCE(S): MARPAT 132:28628
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB In the title photog. material possessing .gtoreq.1 yellow-coloring, .gtoreq.1 magenta-coloring, and .gtoreq.1 cyan-coloring photosensitive Ag halide emulsion layers and .gtoreq.1 non-photosensitive hydrophilic colloid layer on a support, .gtoreq.1 of the cyan-coloring layers contains (a) .gtoreq.1 cyan dye-forming coupler I [Za, Zb = :CR3, :N, either one is :N and the other :CR3; R1, R2 = electron-attracting group with Hammett's substituent const. .sigma.p .gtoreq.0.20, the sum of the .sigma.p values of R1 and R2 is .gtoreq.0.65; R3 = H, substituent; X = H, group releasing upon coupling with an oxidized arom. primary amine color developing agent; when R1-3 and X are divalent groups, the compd. may link to form a (co)polymer], (b) a compd. II, and (c) a compd. III or IV [Ra1 and Ra2 are H, alkyl or aryl; Ra3, Ra4 = H, alkyl, aryl; Ra5 = aryl, the total C no. of Ra1-a5 is .gtoreq.14; X1, X2 = OH, alkoxy, NHR4 (R4 = H, alkyl, aryl, acyl, sulfonyl, carbamoyl, sulfamoyl, alkoxy-carbonyl); Y1, Y2 = substituent; n, m = 0-4]. The material provides a high quality color image without color mixing.

IT 184947-09-9P
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (photog. film contg. pyrrolotriazole deriv. photog. cyan coupler, phenidone, and hydroquinone deriv.)
 RN 184947-09-9 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

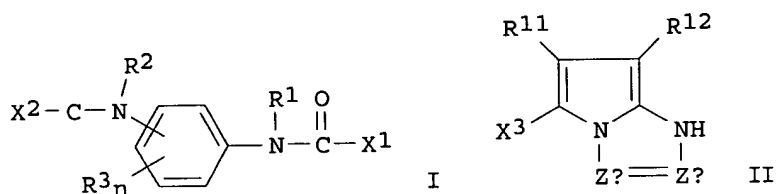


L5 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:640202 CAPLUS
 DOCUMENT NUMBER: 131:279219
 TITLE: Silver halide color photographic material containing

09963584

INVENTOR(S): bisurethane or bisureido compound
 Mikoshiba, Takashi; Soejima, Susumu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11271940	A2	19991008	JP 1998-71020	19980319
OTHER SOURCE(S): MARPAT 131:279219				
GI				



AB The title photog. material, possessing .gtoreq.1 Ag halide emulsion layer on a support, contains .gtoreq.1 a compd. m-X2CONR2C6H4NR1COX1 (R1, R2 = H, aliph. group, aryl; X1, X2 = OR4, NR5R6; R4-6 = H, aliph. group, aryl, R1, R5, and R6 are not alkyl at the same time). The material may contain .gtoreq.1 a compd. I (R1, R2, R4, X1, and X2 are the same as defined for the above formula, resp.; R3 = H, substituent; R5, R6 = H, aliph. group, aryl; n = 0-4; this compd. has no ability of reacting with an oxidized color developing agent to form a dye) and .gtoreq.1 a cyan coupler II [Za, Zb = :CR13, :N, either one is :N and the other :CR13; R11, R12 = electron-attracting group with Hammett's substituent const. .sigma.p .gtoreq.0.20, the sum of .sigma.p values of R11 and R12 is .gtoreq.0.65; R13 = H, substituent; X3 = H, group releasing upon coupling with an oxidized arom. primary amine developing agent, R11-13 and X3 may be divalent groups which link to a polymer higher than dimer or polymer chain to form a (co)polymer]. The material shows improved coloring properties and storage stability and provides a high color quality image with improved lightfastness and without cyan stain.

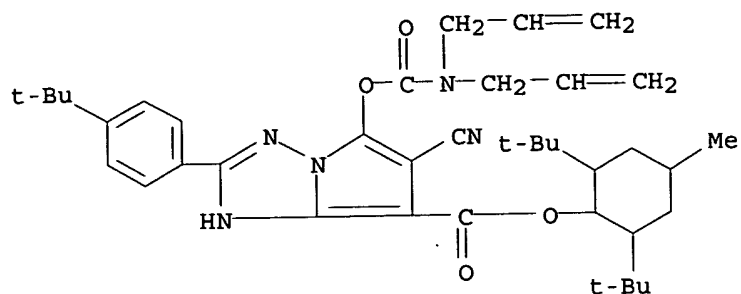
IT 184947-09-9 200137-20-8 200137-23-1
 245440-03-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (silver halide color photog. material contg. bisurethane or bisureido compd. and pyrolotriazole cyan coupler)

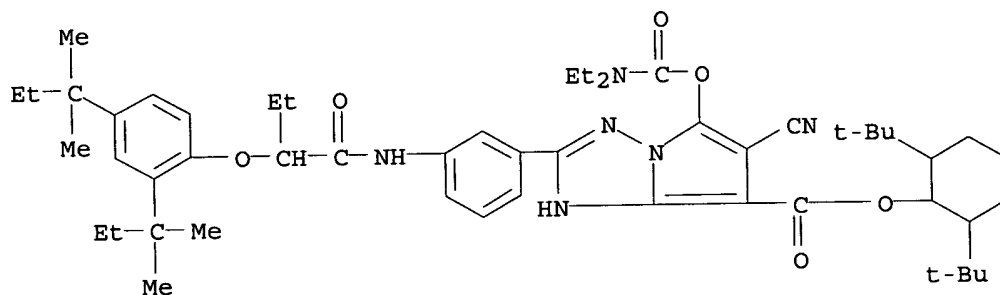
RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

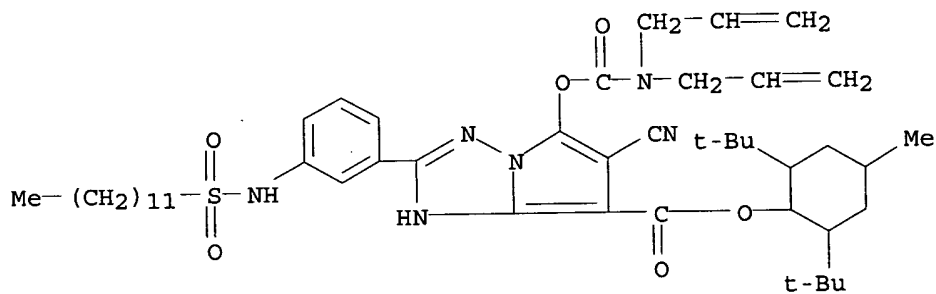
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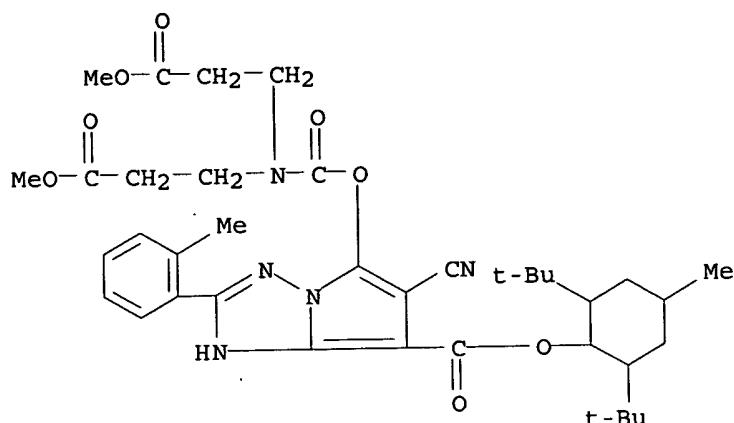
RN 200137-20-8 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 200137-23-1 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 245440-03-3 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-methoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:545194 CAPLUS

DOCUMENT NUMBER: 131:206897

TITLE: Color photographic film, manufacture of color filter using the same, and color filter for display

INVENTOR(S): Mizukawa, Hiroki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 73 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

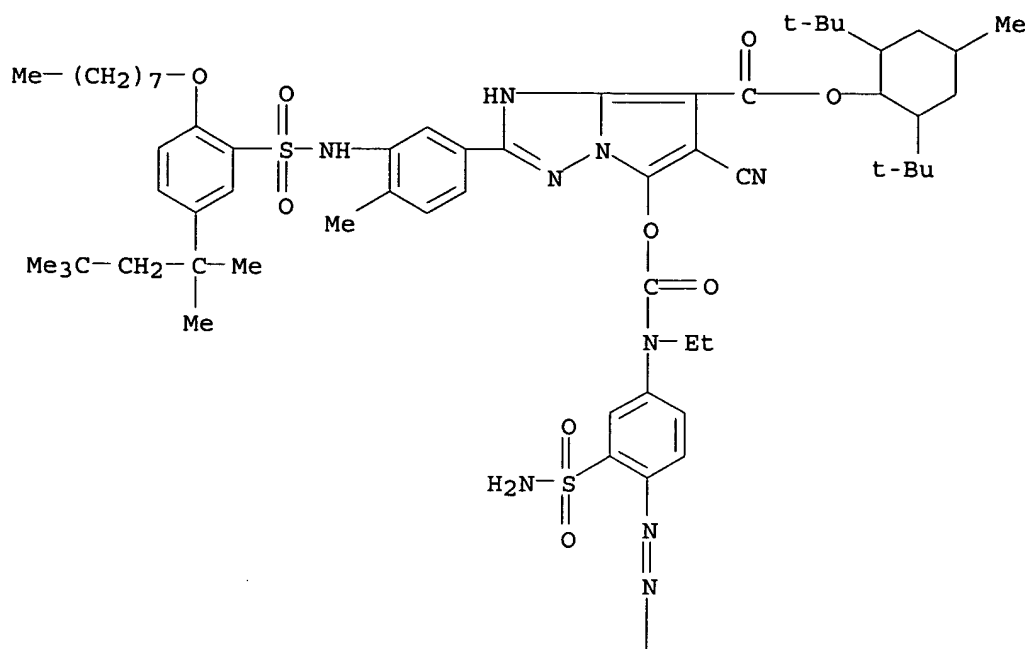
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

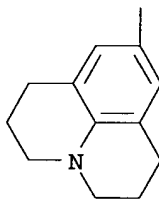
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 11231481	A2	19990827	JP 1998-28943	19980210
AB	<p>The color photog. film contains a yellow-colored cyan coupler Q1(TIME)n-L1m-(YDYE) [Q1 = cyan dye forming coupler residue; TIME = timing group; L1 = divalent connection group; YDYE = yellow dye residue; n, m = 0-3] or A1-N:N-R1 [A1 = cyan dye forming coupler residue; R1 = aryl, heterocycle], a magenta-colored cyan coupler Q2-(TIME)n-L2m-(MDYE) [Q2 = cyan dye forming coupler residue; TIME = timing group; L2 = divalent connection group; MDYE = magenta dye residue; m, n = 0-3] or A2-N:N-R2 [A2 = cyan dye forming coupler residue; R2 = aryl, heterocycle], and a yellow-colored magenta coupler Q3-(TIME)n-L3m-(YDYE) [Q3 = magenta dye forming coupler residue; TIME = timing group; L3 = divalent connection group; YDYE = yellow dye residue; n, m = 0-3] or A3-N:N-R3 [A3 = magenta dye forming coupler residue; R3 = aryl, heterocycle]. The excellent color filter is obtained easily by using the above colored couplers.</p>				
IT	<p>240812-14-0 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses) (magenta-colored cyan coupler in color photog. film for manufg. color filter of display)</p>				
RN	240812-14-0 CAPLUS				
CN	<p>1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[3-(aminosulfonyl)-4-[(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-9-yl)azo]phenyl]ethylamino]carbonyl]oxy]-6-cyano-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2,4-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)</p>				

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PAGE 1-A



PAGE 2-A



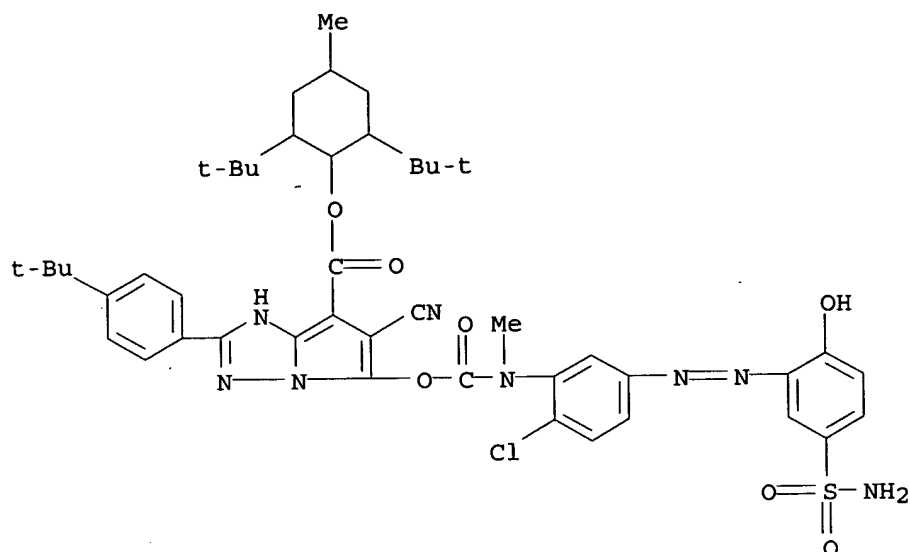
IT 240812-10-6

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(yellow-colored cyan coupler in color photog. film for manufg. color filter of display)

RN 240812-10-6 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[5-[[5-(aminosulfonyl)-2-hydroxyphenyl]azo]-2-chlorophenyl]methylamino]carbonyloxy]-6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:482107 CAPLUS

DOCUMENT NUMBER: 131:122889

TITLE: Silver halide color photographic material

INVENTOR(S): Mikoshiba, Hisashi; Soejima, Shin; Shimada, Yasuhiro; Takahashi, Osamu; Deguchi, Yasuaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 174 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 932079	A1	19990728	EP 1999-101049	19990122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11258748	A2	19990924	JP 1998-80368	19980312
JP 11327101	A2	19991126	JP 1998-288708	19980928
JP 11327100	A2	19991126	JP 1999-53622	19990302
PRIORITY APPLN. INFO.:			JP 1998-25208	19980123
			JP 1998-76596	19980310
			JP 1998-78512	19980312
			JP 1998-80368	19980312
			JP 1998-288708	19980928

OTHER SOURCE(S): MARPAT 131:122889

AB There is disclosed a silver halide color photog. material comprising a compd. of formula $R_1C(R_7)_n[C(R_2)(R_3)OCOC(R_4)=C(R_5)R_6]_{3-n}$ wherein R_1 is a hydrogen atom, an alkyl group having 1 to 30 carbon atoms, an alkenyl group having 2 to 30 carbon atoms, or an aryl group; R_2 , R_3 , R_4 , R_5 , R_6 , and R_7 each independently represents a hydrogen atom or an alkyl group having 1 to 30 carbon atoms; and n is 0 or 1. The color photog. material provide cyan images of excellent fastness.

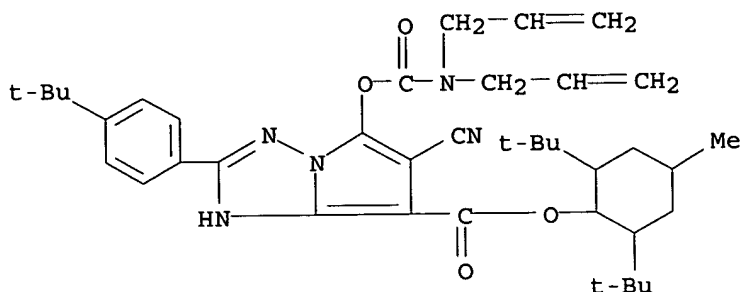
IT 184947-09-9 200137-20-8 232947-56-7

RL: TEM (Technical or engineered material use); USES (Uses)
 (color photog. emulsions for improved cyan dye image formation contg. vinyl compds. and)

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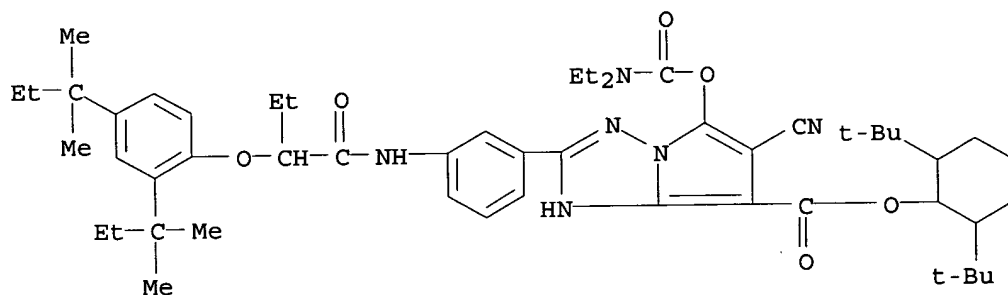
RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



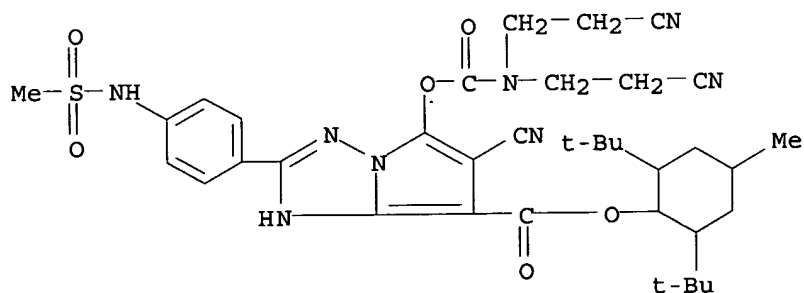
RN 200137-20-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]phenyl]-6-cyano-5-[[[(diethylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 232947-56-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(2-cyanoethyl)amino]carbonyl]oxy]-6-cyano-2-[4-[(methylsulfonyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

9

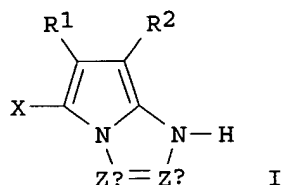
THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

09963584

ACCESSION NUMBER: 1999:394789 CAPLUS
DOCUMENT NUMBER: 131:80710
TITLE: Processing of color photographic material containing
pyrrolotriazole cyan coupler with ferric dicarboxylate
complex bleaching agent to prevent stain formation
INVENTOR(S): Seki, Hiroyuki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11167189	A2	19990622	JP 1997-331945	19971202

OTHER SOURCE(S): MARPAT 131:80710
GI



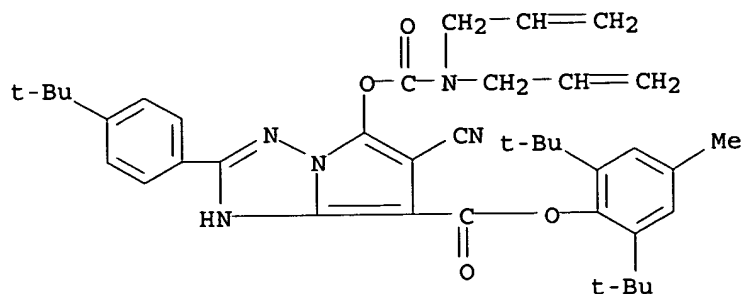
AB The method comprises imagewise exposure, color development, and bleaching in which (1) the bleaching soln. contains (a) a ferric complex derived from dicarboxyalkylamines, alkylenediamine disuccinates, and/or alkylenediamine monosuccinates and (b) another dicarboxylic compd. and (2) the photog. material to be processed, having yellow-, magenta-, and cyan-dye-forming layers and a nonphotog. hydrophilic colloid layer on the support, contains a pyrrolotriazole coupler I (R1, R2, = H or substituent; one of Za and Zb is N and the other is methine). The method has blood color developability, prevents the generation of edge staining, and improves whiteness of the background.

IT 201931-72-8

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(cyan coupler; processing of color photog. material contg. pyrrolotriazole cyan coupler with ferric dicarboxylate complex bleaching agent to prevent stain formation)

RN 201931-72-8 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylphenyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:322525 CAPLUS

DOCUMENT NUMBER: 131:25704

TITLE: Method for processing silver halide color photographic material containing pyrrolotriazole coupler with low pH bleach-fixing agent to reduce cyan stain

INVENTOR(S): Ishikawa, Takatoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

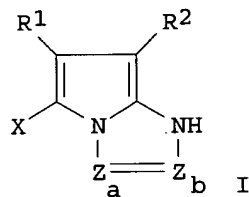
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11133562	A2	19990521	JP 1997-292946	19971024

OTHER SOURCE(S): MARPAT 131:25704
GI



AB In the method for processing Ag halide color photog. material comprising imagewise exposure, chromogenic development, desilvering, and washing and/or stabilizing, the bleach-fixing soln. shows the pH 3.5-5.5, preferably contg. RSO₂M (R = alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl; M = H, alkali metal, ammonium, quaternary amine), and the photog. material contains a pyrrolotriazole cyan coupler I (Z_a, Z_b = CR₃-, N-; Z_a .noteq. Z_b; R₁, R₂ = electron-withdrawing group with the Hammett's .sigma.p .gtoreq.0.20 and the sum of .sigma.p .gtoreq.0.65; R₃ = H, substituent; X = H, leaving group by coupling with the oxidized developing agent; I may take dimer or polymer) in the cyan-developing layer,. The photog. material used in the above processing may contain a pyrazolinone deriv. Though I provides a cyan dye with an outstanding purity, it is accompanied by cyan stain, which is reduced by the low pH bleach-fixing, consequently, the combination improves color image quality of the processed material.

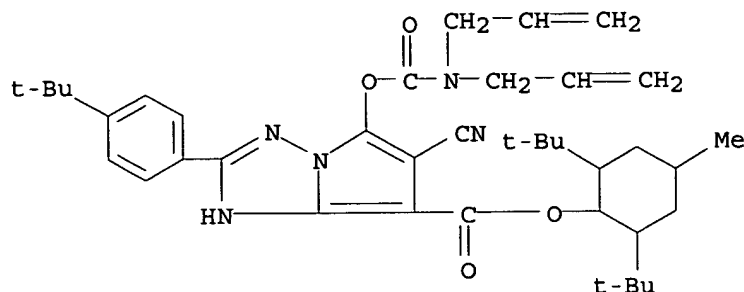
IT 184947-09-9

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RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(cyan coupler; method for processing silver halide color photog. material contg. pyrrolotriazole coupler with low pH bleach-fixing agent to reduce cyan stain)

RN 184947-09-9 CAPLUS

1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:322524 CAPLUS

DOCUMENT NUMBER: 131:25703

TITLE: Processing of silver halide color photographic material containing pyrrolotriazole coupler with sulfinate-containing developer

INVENTOR(S) : Ishikawa, Takatoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

DOCUMENT TYPE: Letter
LANGUAGE: Japanese

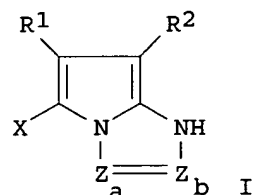
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11133561	A2	19990521	JP 1997-298729	19971030

OTHER SOURCE(S) : MARPAT 131:25703

GI



AB In the method for processing Ag halide color photog. material comprising imagewise exposure, chromogenic development, desilvering, and washing and/or stabilizing, the developer soln. contains RSO₂M (R = alkyl, cycloalkyl, alkenyl, alkynyl, aryl, aralkyl; M = H, alkali metal, ammonium, quaternary amine) and the photog. material contains a

pyrrolotriazole cyan coupler I (Za, Zb = CR₃., N.; Za .noteq. Zb; R₁, R₂ = electron-withdrawing group with the Hammett's .sigma.p .gtoreq.0.20 and the sum of .sigma.p .gtoreq.0.65; R₃ = H, substituent; X = H, leaving group by coupling with the oxidized developing agent; I may take dimer or polymer) in the cyan-developing layer. Though the coupler I gives a cyan dye with an outstanding purity, it is accompanied by cyan stain, which is reduced by the addn. of RSO₂M, consequently, the combination improves color image quality of the processed material.

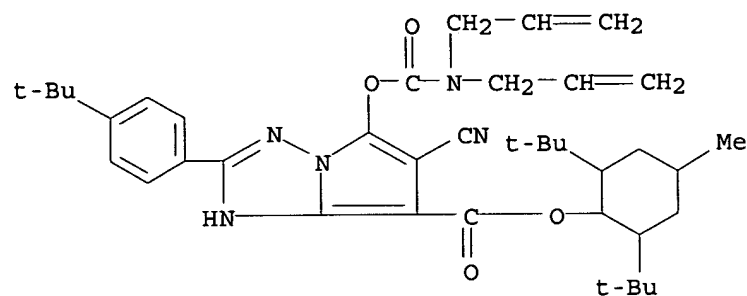
IT 184947-09-9

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(cyan coupler; processing of silver halide color photog. material contg. pyrrolotriazole coupler with sulfinate-contg. developer)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:277517 CAPLUS

DOCUMENT NUMBER: 130:344994

TITLE: Rapid development for color photographic material containing pyrrolotriazole cyan coupler

INVENTOR(S): Momura, Hideaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 67 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

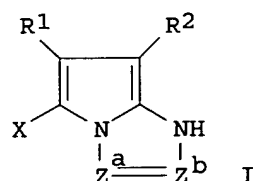
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11119400	A2	19990430	JP 1997-287107	19971020

OTHER SOURCE(S): MARPAT 130:344994

GI



AB A photog. process where an exposed, developed, desilverized, washed, and fixed color photog. material contg. a pyrrolotriazole-type cyan coupler I (Z1, Z2 = :CR3 and :N, alternatively; R1, R2 = electron-withdrawing group with Hammett's σ_p ≥ 0.20 and with the sum of σ_p ≥ 0.65 ; R3 = H, substituent; X = H, group released upon reaction with oxidized developer) in an emulsion layer, is contacted with a heating roller and then dried by hot air at mass rate ≥ 1000 kg/m²h. The hot air is blown from nozzles. The process inhibits concn. increase of developed dye images.

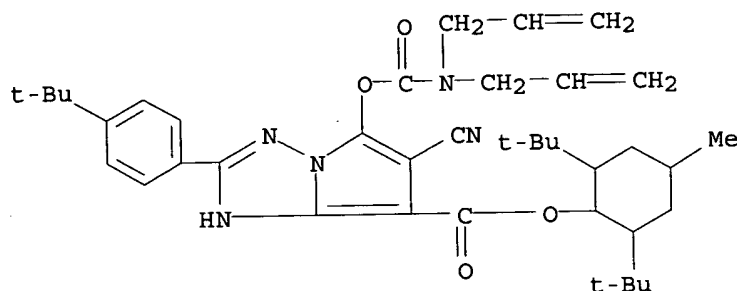
IT 184947-09-9

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(cyan coupler; forced drying for color photog. material contg. pyrrolotriazole cyan coupler for inhibition of dye fading)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyloxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:260789 CAPLUS

DOCUMENT NUMBER: 130:344973

TITLE: Silver halide photographic material for color filter formation

INVENTOR(S): Mizukawa, Hiroki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

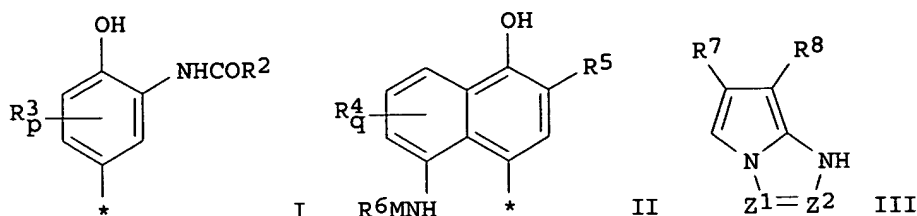
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11109123	A2	19990423	JP 1997-267112	19970930
OTHER SOURCE(S): MARPAT 130:344973				
GI				



AB The material contains a red dye- or a magenta dye-releasing coupler having a formula Q1(TIME)nLmDY or a red or magenta colored coupler having a formula Q2N:NR1 [Q1, 2 = coupler residue I, II, or III; TIME = timing group that releases (TIME)n-1LmDY after eliminating Q1 or timing group that releases (TIME)n-2LmDY after being eliminated from TIME; R1 = aryl, heterocyclic; n, m = 0, 1, 2, 3; L = divalent group; DY = red or magenta dye residue; R2 = alkyl, cycloalkyl, alkenyl, aryl, heterocyclic, alkoxy, cycloalkyloxy, alkenyloxy, aryloxy, alkylamino, cycloalkylamino, alkenylamino, arylamino, heterocyclic amino; R3, 4 = substituent; p = 0-3 integer; R5, 7, 8 = H, substituent; q = 0-4 integer; M = CO, SO2; R6 = alkyl, cycloalkyl, aryl, heterocyclic, alkoxy, cycloalkyloxy, aryloxy, heterocycloxy, alkylamino, cycloalkylamino, arylamino, heterocyclic amino; Z1, 2 = N, CR9; R9 = H, alkyl, cycloalkyl, alkenyl, aryl, heterocyclic]. The method involves exposing the material, color-developing, and desilverizing to obtain the filter having a blue, green, and red pixel pattern. The filter contains the coupler. The filter with light transmittance, excellent heat and light fastness, and thin film thickness is manufd. using the material.

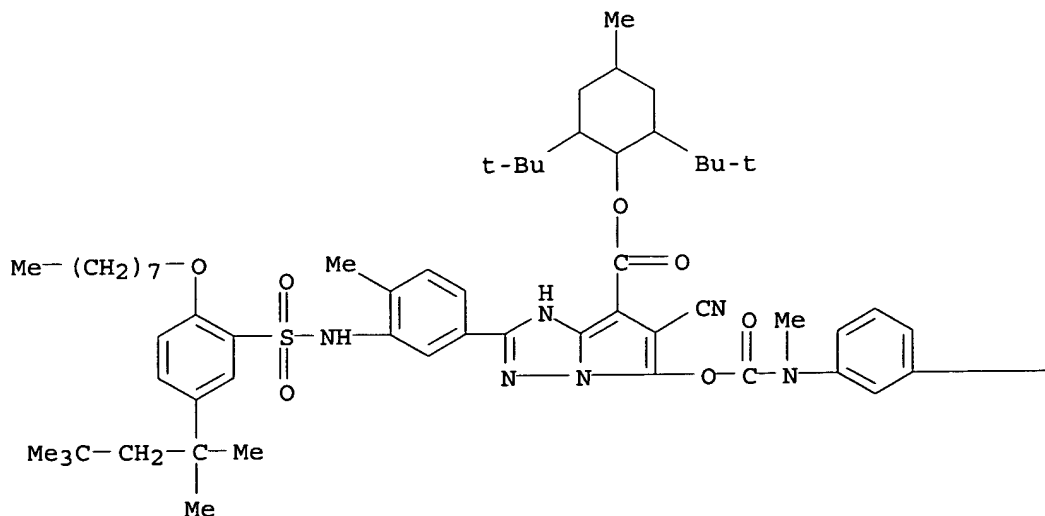
IT 223734-81-4 224045-18-5 224045-35-6

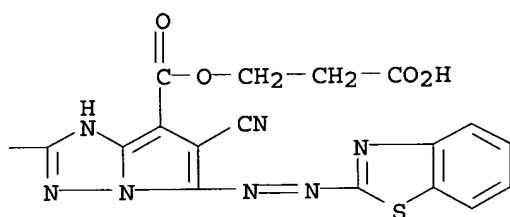
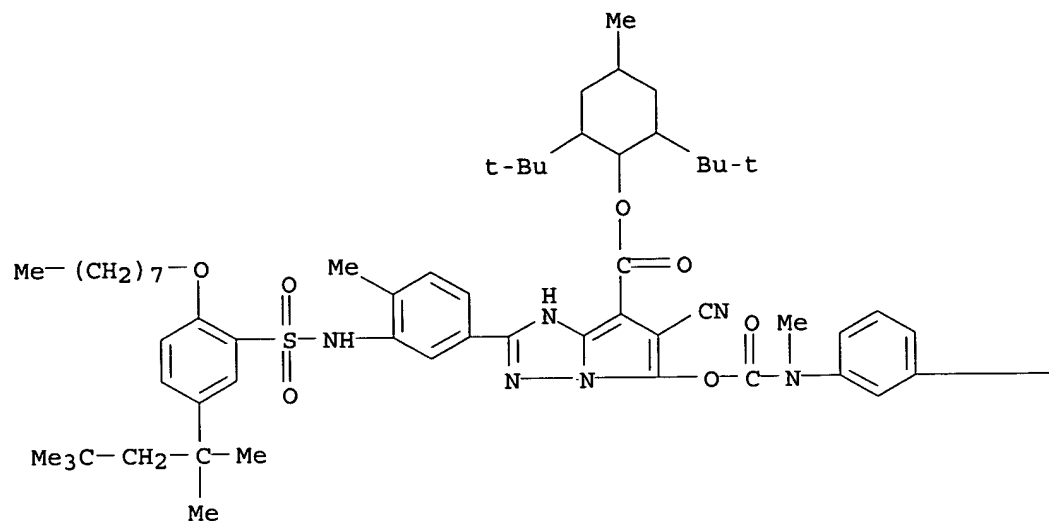
RL: TEM (Technical or engineered material use); USES (Uses)
(Ag halide photog. material for color filter contg. red or magenta coupler)

RN 223734-81-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-(2-benzothiazolylazo)-2-[3-[[[7-[[[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl]oxy]carbonyl]-6-cyano-2-[4-methyl-3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-1H-pyrrolo[1,2-b][1,2,4]triazol-5-yl]oxy]carbonyl]methylamino]phenyl]-6-cyano-, 2-carboxyethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

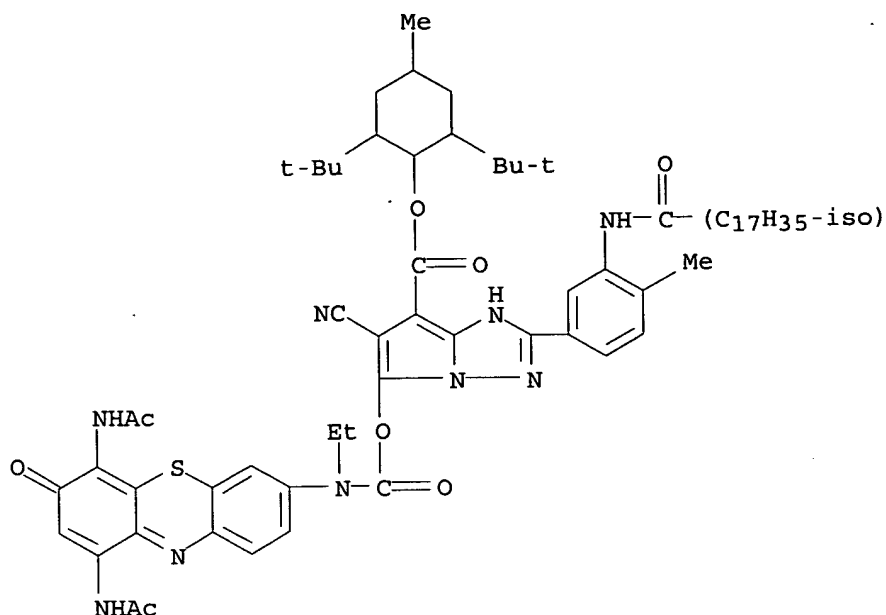




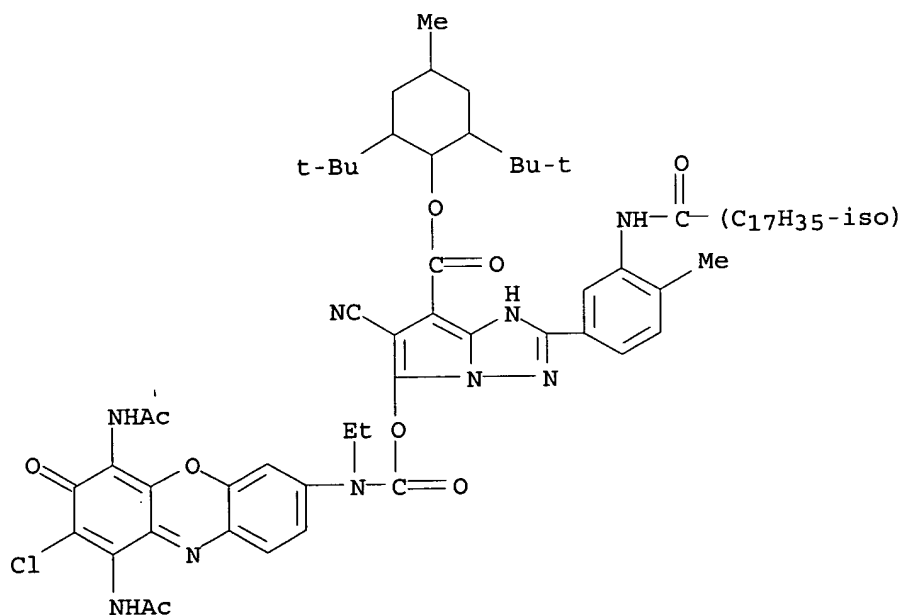
RN 224045-18-5 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[1,4-bis(acetylamino)-3-oxo-3H-phenothiazin-7-yl]ethylamino]carbonyloxy]-6-cyano-2-[4-methyl-3-[(1-oxoisooctadecyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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RN 224045-35-6 CAPLUS
CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[1,4-bis(acetylamino)-2-chloro-3-oxo-3H-phenoxazin-7-yl]ethylamino]carbonyloxy]-6-cyano-2-[4-methyl-3-[(1-oxoisooctadecyl)amino]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



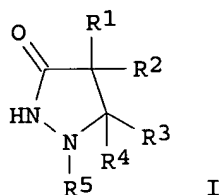
L5 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:78733 CAPLUS
DOCUMENT NUMBER: 130:160627
TITLE: Silver halide color photographic material containing 3-pyrazolidone derivative and cyan coupler with low

09963584

INVENTOR(S): Yoshioka, Yasuhiro; Soejima, Susumu; Takahashi, Osamu;
Saito, Naoki; Mikoshiba, Takashi; Morigaki, Masakazu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11030843	A2	19990202	JP 1997-197992	19970709
US 2001004512	A1	20010621	US 1998-110271	19980706
PRIORITY APPLN. INFO.:			JP 1997-197992	A 19970709
OTHER SOURCE(S):		MARPAT 130:160627		

GI

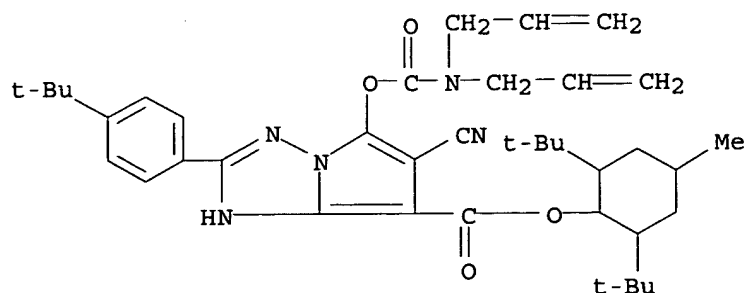


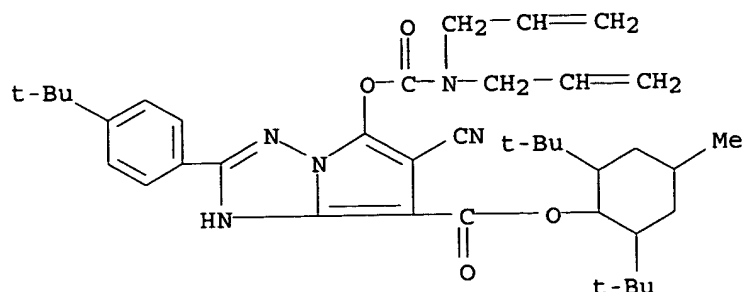
AB The photog. material has .gtoreq.1 cyan dye-developing layer
contg. a cyan coupler with the pKa .ltoreq.8.7, and .gtoreq.1 hydrophilic
colloid layer contg. a 3-pyrazolidone deriv. I (R1, R2 = H, alkyl, aryl;
R3, R4 = H, alkyl, aryl; R5 = aryl; sum of C atoms in R1-R5 >13).
Preferable cyan coupler is pyrrolotriazole derivs. The combination of the
coupler and 3-pyrazolidone improves rapid developability and dye
developability to keep a consistent processing quality.

IT 184947-09-9P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(cyan coupler; silver halide color photog. material contg.
3-pyrazolidone deriv. and cyan coupler with low pKa to improve
developability)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-
dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-,
2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

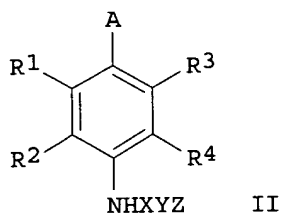
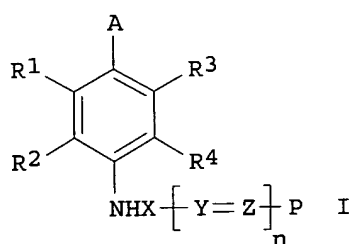




L5 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:735423 CAPLUS
 DOCUMENT NUMBER: 130:59003
 TITLE: Silver halide color diffusion-transfer photographic material containing dye-scavenging polymer to improve whiteness of background
 INVENTOR(S): Taguchi, Toshiki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 68 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10301246	A2	19981113	JP 1997-118898	19970422

GI



AB The photog. material contg. a photog. Ag halide, a binder, a chromogenic coupler, and a developing agent selected from I (R1-5 = H, substituent; A = OH, substituted amino; X = polyvalent linkage selected from CO, SO, SO2 PO;; Y, Z = N, CR5;; n .gtoreq.0; P = proton-releasing group or cationic group) and II (Y = bivalent linkage; Z = nucleophile) is characterized by incorporation of a scavenger which traps diffusible colorant present in the developing environment. Preferable scavenger is vinyl polymers having an onium group. The material gives images with good background whiteness due to the scavenger.

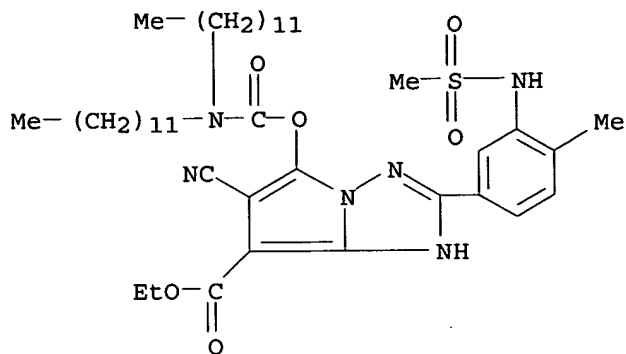
IT 217088-50-1

RL: DEV (Device component use); USES (Uses)
 (cyan coupler; silver halide color diffusion-transfer photog. material contg. dye-scavenging polymer to improve whiteness of background)

RN 217088-50-1 CAPLUS

09963584

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[(didodecylamino)carbonyl]oxy]-2-[4-methyl-3-
 [(methylsulfonyl)amino]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:351914 CAPLUS

DOCUMENT NUMBER: 129:87954

TITLE: Silver halide color photographic material containing pyrrolotriazole cyan coupler

INVENTOR(S): Ito, Takayuki; Matsuoka, Mitsuyuki; Shimada, Yasuhiro; Shimura, Yoshio; Matsuda, Naoto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

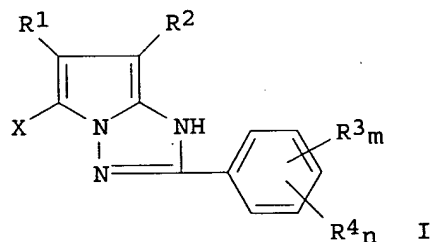
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10142759	A2	19980529	JP 1996-304415	19961115

GI



AB The color photog. material has .gtoreq.1 layer contg. a pyrrolotriazole coupler I [R1, R2 = electron-withdrawing group with Hammett's .sigma..rho. 0.2-1.0; R3 = NHCOR31, NHSO2R32, CONHR33; R31 = H, alkyl, aryl, heterocycle, alkyloxy, aryloxy; R32, R33 = alkyl, aryl, heterocycle; R4 = substituent; n = 0-(5-m); m = 2-5; X = H, leaving group to be released by the coupling reaction with the oxidized developing agent] on a support. The coupler has good developability even at low solvent ratio and good stability from leuco cyan dye problem. The photog. material

incorporating the coupler has consistent color reprodn. quality. Preferable application of the coupler is to multilayer color reversal films. Suitable couplers are I [R1 = CN, R2 = 2,6-dibutyl-4-methyl-phenoxy-carbonyl, R3 = 2,5-di(octyloxy-5-hydroxy-phenylsulfoamino), R4 = 4-Me].

IT 209341-85-5

RL: DEV (Device component use); USES (Uses)

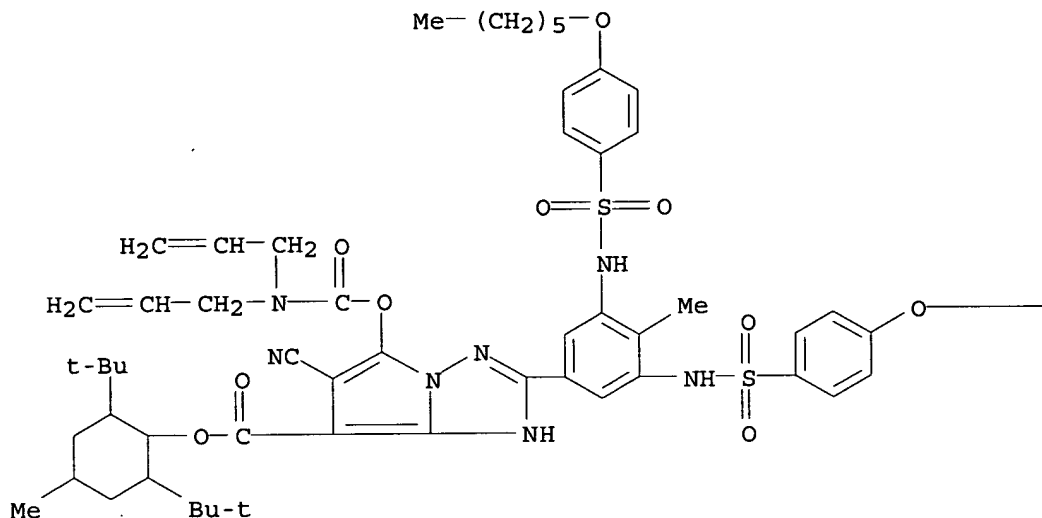
(cyan coupler; silver halide color photog. material contg.

pyrrolotriazole cyan coupler to improve color developability and safety from leuco cyan dye)

RN 209341-85-5 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3,5-bis[[[4-(hexyloxy)phenyl]sulfonyl]amino]-4-methylphenyl]-6-cyano-5-[[[di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

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PAGE 1-B

— (CH₂)₅—Me

IT 209341-82-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)

(cyan coupler; silver halide color photog. material contg.

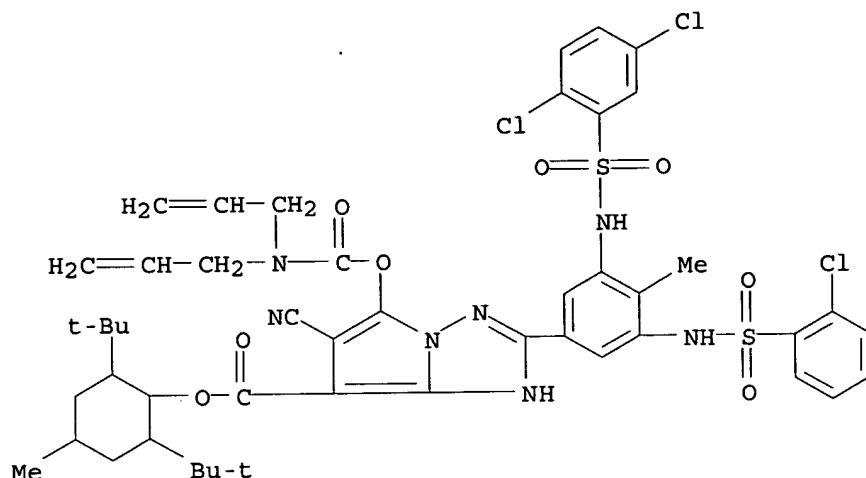
pyrrolotriazole cyan coupler to improve color developability and safety

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from leuco cyan dye)

RN 209341-82-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 2-[3-[[[2-chlorophenyl)sulfonyl]amino]-5-[[[(2,5-dichlorophenyl)sulfonyl]amino]-4-methylphenyl]-6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:154919 CAPLUS

DOCUMENT NUMBER: 128:263879

TITLE: Silver halide color photographic material using pyrrole derivative coupler

INVENTOR(S): Kawagishi, Toshio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

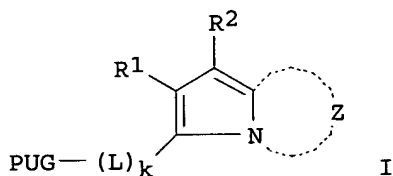
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10062923	A2	19980306	JP 1996-216205	19960816

GI



AB The title material contains a compd. I (Z = nonmetal atoms required to form a N-contg. azole ring; R1, R2 = electron-attracting group with Hammett's substituent const. $\sigma_p \geq 0.3$; L = timing group; k = 0-2; PUG = photog. useful compd. residue). The compd. releases the photog. useful group effectively upon development and produces a

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dye showing good resistance to redn. discoloration.

IT 204850-19-1 204850-20-4 204850-21-5

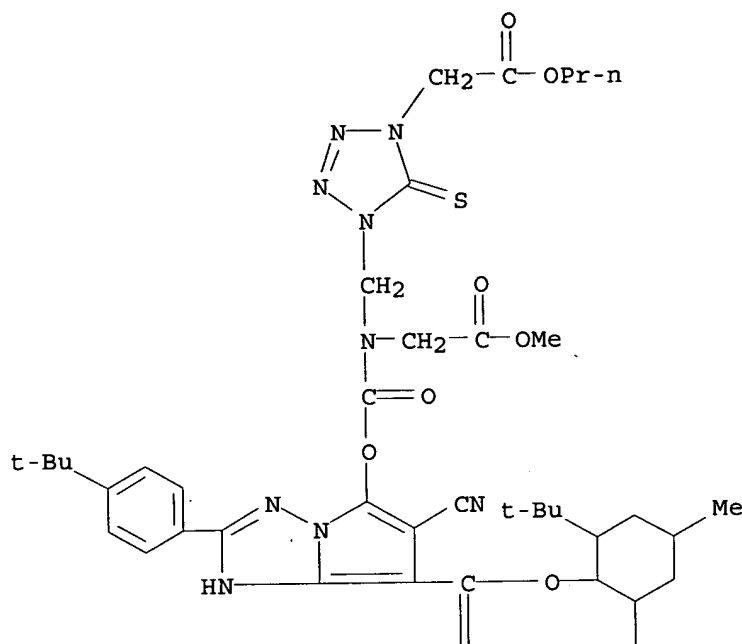
204850-22-6

RL: TEM (Technical or engineered material use); USES (Uses)
(pyrrole deriv. photog. coupler)

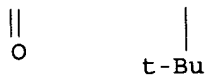
RN 204850-19-1 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[[(4,5-dihydro-4-(2-oxo-2-propoxyethyl)-5-thioxo-1H-tetrazol-1-yl)methyl](2-methoxy-2-oxoethyl)amino]carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

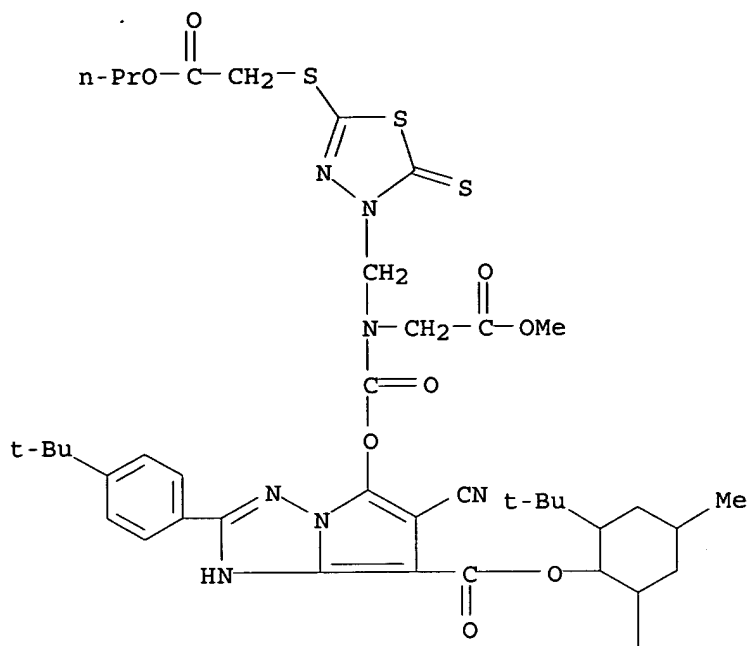


PAGE 2-A



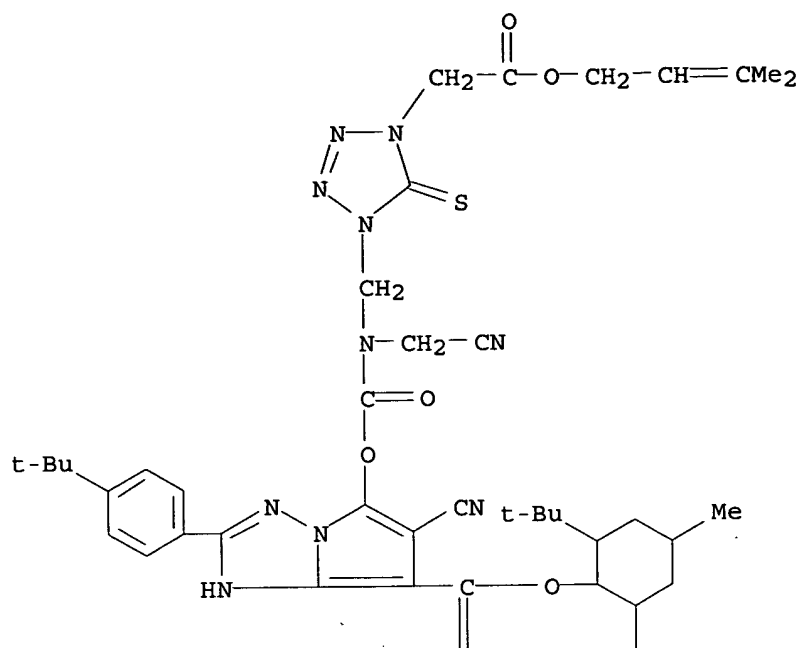
RN 204850-20-4 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-dimethylethyl)phenyl]-5-[[[(2-methoxy-2-oxoethyl)[5-[(2-oxo-2-propoxyethyl)thio]-2-thioxo-1,3,4-thiadiazol-3(2H)-yl)methyl]amino]carbonyl]oxy]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

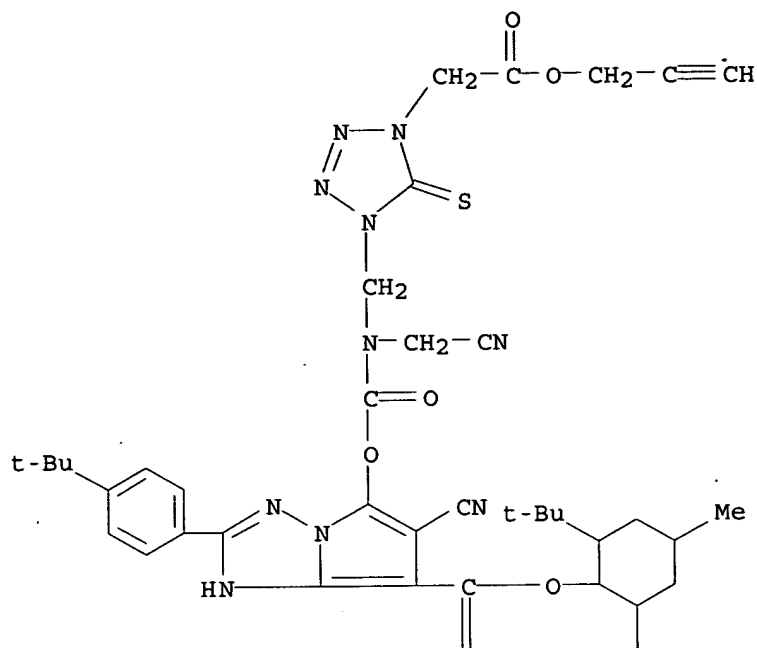


t-Bu

RN 204850-21-5 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[[(cyanomethyl) [[4,5-dihydro-4- [2- [(3-methyl-2-butenyl) oxy] -2-oxoethyl] -5-
 thioxo-1H-tetrazol-1-yl]methyl]amino]carbonyl]oxy] -2- [4- (1,1-
 dimethylethyl)phenyl] -, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl
 ester (9CI) (CA INDEX NAME)

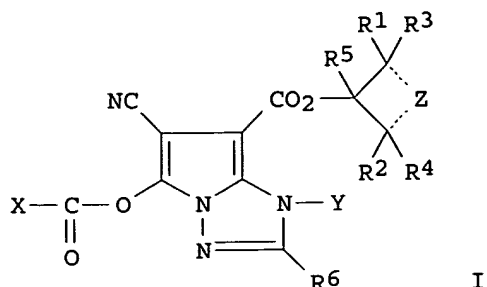


RN 204850-22-6 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-
 [[[cyanomethyl][[4,5-dihydro-4-[2-oxo-2-(2-propynyloxy)ethyl]-5-thioxo-1H-
 tetrazol-1-yl]methyl]amino]carbonyl]oxy]-2-[4-(1,1-dimethylethyl)phenyl]-,
 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1997:716132 CAPLUS
 DOCUMENT NUMBER: 128:68433
 TITLE: Silver halide photographic material containing
 pyrrolotriazole coupler and amine
 INVENTOR(S): Morigaki, Masakazu; Mikoshiba, Hisashi; Yoneyama,
 Hiroyuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288339	A2	19971104	JP 1996-126445	19960423



AB Claimed photog. material has a layer contg. (1) a pyrrolo[1,2-b]triazole coupler I (R1-5 = H, substituent; Z = non-metal ring; X = heterocyclic group, amino, aryl; R6 = substituent; Y = H, substituent) and (2) a compd. Ra1OLNRa2Ra3, where Ra1, Ra2, and Ra3 are alkyl, alkenyl, aryl, heterocyclic group; L = arylene or single bond; Ra1 and L, Ra2 and L, Ra3 and L, Ra1 and Ra2, Ra2 and Ra3, Ra1 and Ra3 may be combined to form 5-7-membered ring; Ra3 may also be H. It has good color reprodn. quality, good dye stability and provides an image with low cyan and yellow dye stains. Thus, in a multilayer color paper, coupler I (R1-5 and Z = 2,6-di-tert.-butyl-4-methylcyclohexyl; R6 = 4-tert.-butylphenyl; Y = H; X = morpholine-4-yl) and 1-methoxy-2,2,6,6-tetramethyl-4-tetradecoyl-piperidine were incorporated to provide the mentioned advantages.

IT 200216-39-3 200216-41-7

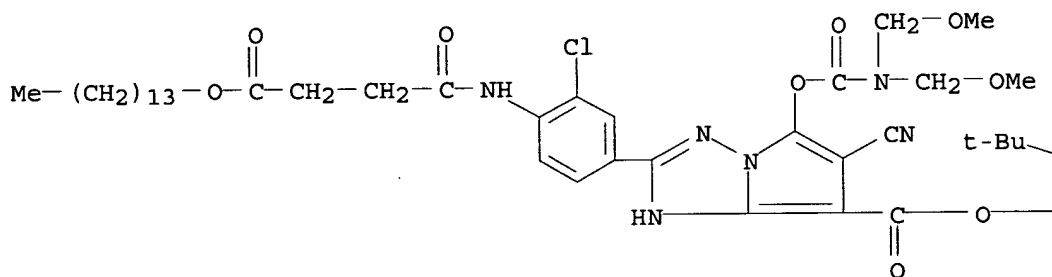
RL: DEV (Device component use); USES (Uses)

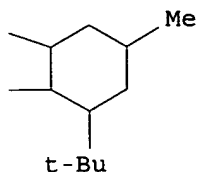
(photog. material contg. pyrrolo[1,2-b]triazole coupler and amines to reduce yellow and cyan stains)

RN 200216-39-3 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(methoxymethyl)amino]carbonyl]oxy]-2-[3-chloro-4-[[1,4-dioxo-4-(tetradecyloxy)butyl]amino]phenyl]-6-cyano-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

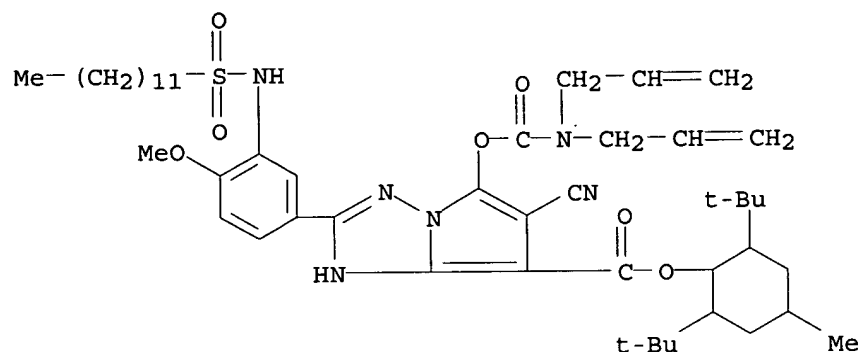
PAGE 1-A





RN 200216-41-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(di-2-propenylamino)carbonyl]oxy]-2-[3-[(dodecylsulfonyl)amino]-4-methoxyphenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:716131 CAPLUS

DOCUMENT NUMBER: 128:68432

TITLE: Silver halide color photographic material containing phenolic and pyrrolotriazole cyan couplers

INVENTOR(S): Yoneyama, Hiroyuki; Mikoshiba, Hisashi; Morigaki, Masakazu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

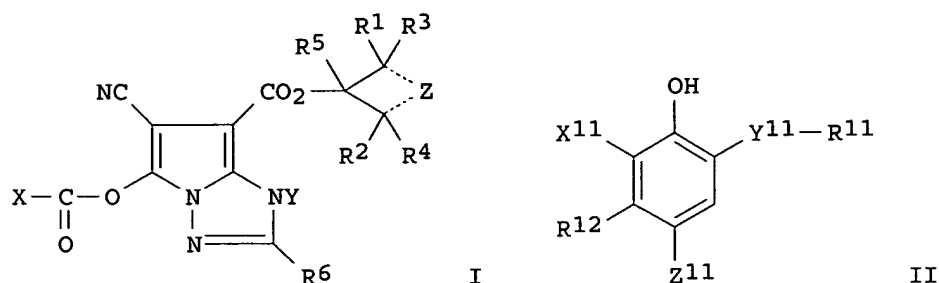
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09288337	A2	19971104	JP 1996-101556	19960423

OTHER SOURCE(S): MARPAT 128:68432
GI



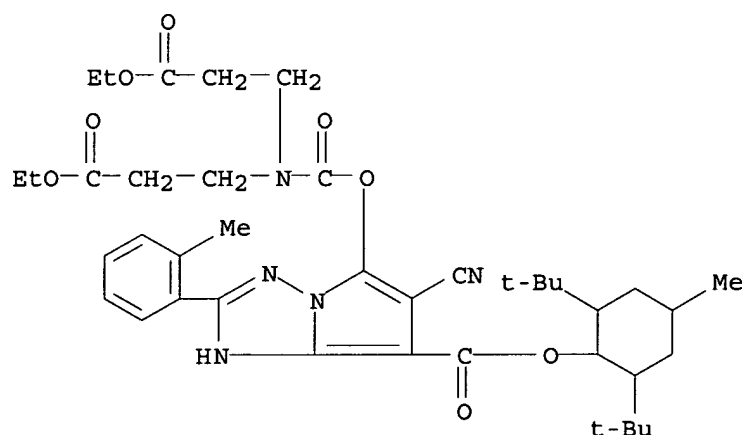
AB Claimed color photog. material has .gtoreq.1 cyan dye-developing Ag halide emulsion layer contg. (1) a cyan coupler I (R1-5 = H, substituent; Z = non-metal ring; X = heterocyclic group, amino aryl; R6 = substituent; Y = H, substituent) and (2) a phenolic coupler II (R11 = aliph., arom. or heterocyclic group, amino; X11 = H, halo, alkoxy, acylamino; R12 = alkyl, acylamino; R12 = and X11 may be combined to form a 5-, 6- or 7-membered ring; Z = H, leaving group to be released by the coupling reaction with the oxidized developing agent), where the added ratio of coupler II/coupler I is 60 mol% or less. It has good color reprodn. quality, good dye stability and is insensitive to the processing fluctuation. Thus, in a multilayer color paper, coupler I (R1-5 and Z = 2,6-di-tert.-butyl-4-methylcyclohexyl; R6 = 4-tert.-butylphenyl; Y = H; X = morpholine-4-yl) and coupler II (n-pentadecylcarbonylamino-4,6-di-chloro-5-ethylphenol) were utilized to provide the mentioned advantages.

IT 200110-96-9

RL: DEV (Device component use); USES (Uses)
(color photog. material contg. phenolic and pyrrolotriazole cyan couplers to improve color reprodn. quality and dye stability)

RN 200110-96-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 5-[[[bis(3-ethoxy-3-oxopropyl)amino]carbonyl]oxy]-6-cyano-2-(2-methylphenyl)-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:541954 CAPLUS

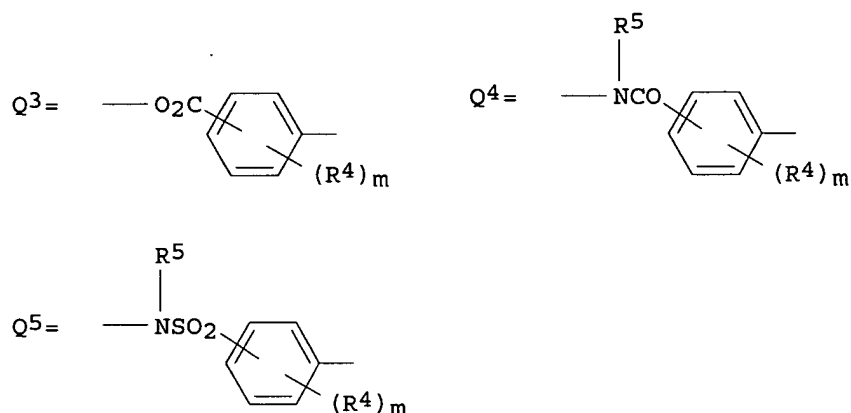
DOCUMENT NUMBER: 127:197698

TITLE: Silver halide color light-sensitive material
containing a polymer coupler and method of making a

09963584

INVENTOR(S): color filter using it
 Igarashi, Tatsuya; Mizukawa, Hiroki; Hirai, Hiroyuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09204027	A2	19970805	JP 1996-316864	19961114
PRIORITY APPLN. INFO.: GI			JP 1995-326252	19951122



AB The title light-sensitive material contains at least one polymer coupler selected from (1) a copolymer of at least one magenta coupler monomer of formula Q1-(L2)_j-(L1)_i-C(R1):CH₂ (I; R1 = H, Cl, alkyl, aryl; L1 = CONR₂, CO₂, NR₂CO, O₂C, Q₃, Q₄, Q₅; wherein R₄ = substituent; R₅ = same as R₂; m = 0-4; R₂ = H, alkyl, aryl, heterocyclyl; L₂ = bivalent linkage group linking L₁ and Q₁; i, j = 0,1; Q₁ = magenta coupler residue forming a magenta dye upon coupling with the oxidized form of an arom. primary amine developer) and at least one cyan coupler of formula Q2-(L4)_h-(L3)_g-C(R3):CH₂ (II; R₃, L₃, L₄, and g are same as described in R₁, L₁, L₂, and i, resp.; Q₂ = cyan coupler residue forming a cyan dye upon coupling with the oxidized form of an arom. primary amine developer) or (2) a copolymer of a magenta coupler I, a cyan coupler II, and a noncoloring monomer contg. at least one ethylene group which does not have capability of coupling with the oxidized form of an arom. primary amine developer. In a silver halide color light-sensitive material possessing at least three silver halide emulsion layers each having different color sensitivity on a support, each silver halide emulsion layer contains a combination of couplers coloring blue, green, or red upon reaction with the oxidized form of an arom. primary amine developer. Besides these three silver emulsion layers, it also possesses at least another silver halide emulsion layer of sep. color sensitivity contg. a coupler color-compensating substantially black of transmittance d. .gtoreq.2.5 when all the couplers on the support are reacted. A color filter possessing blue, green, and red pixels is manufd. by pattern exposure of above silver halide light-sensitive material followed by color development and desilverization. This light-sensitive material and can form blue images excellent in spectral transmission property and thermal

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and light stability and is suitable for making a color filter thin in thickness, excellent in planarity and light and thermal stability, and also possessing black part of high d.

IT 194280-71-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(silver halide color light-sensitive material contg. polymer coupler and method of making color filter using it)

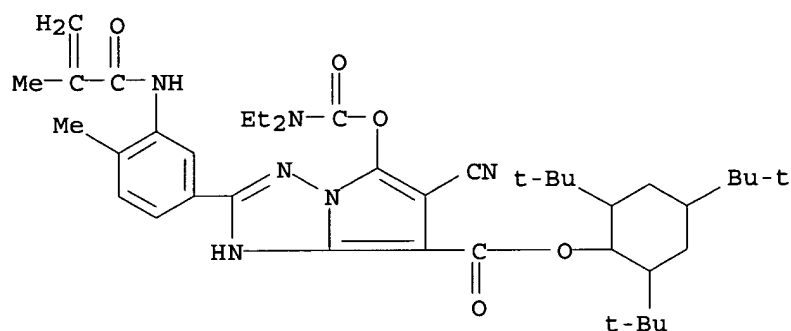
RN 194280-71-2 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diethylamino)carbonyl]oxy]-2-[4-methyl-3-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]-, 2,4,6-tris(1,1-dimethylethyl)cyclohexyl ester, polymer with butyl 2-propenoate and N-[4-[7-chloro-6-(1,1-dimethylethyl)-1H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 194280-70-1

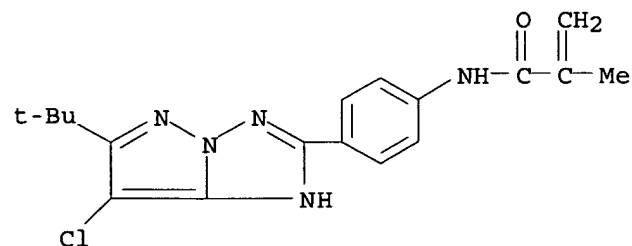
CMF C41 H58 N6 O5



CM 2

CRN 189814-79-7

CMF C18 H20 Cl N5 O

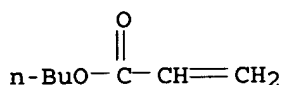


CM 3

CRN 141-32-2

CMF C7 H12 O2

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L5 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:21163 CAPLUS

DOCUMENT NUMBER: 126:52818

TITLE: Silver halide photographic photosensitive material and image formation

INVENTOR(S): Yokozawa, Akihito

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

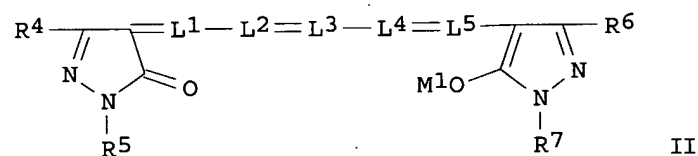
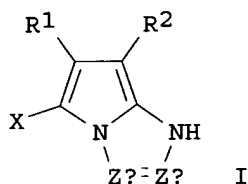
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08278613	A2	19961022	JP 1995-107869	19950407

GI



AB The material comprises a support, a photosensitive Ag halide emulsion layer contg. a cyan coupler I [Za = C(R3), N; Zb = C(R3) when Za = N; R1-2 = electron attractive group having Hamett's substitution group value .sigma.p = 0.20-1.0; X = H or group released by coupling reaction with oxidized color developer; R3 = substitution group] and Ag halide emulsion contg. .gtoreq.95 mol% AgCl, and a compd. II (R4, R6 = electron attractive group having .sigma.p .gtoreq.0.3; R5, R7 = alkyl, aryl; L1-5 = methyne; M1 = H, monovalent cation or metal; .gtoreq.1 of L1-5 has a substitution group) in a layer constituting the material. The material is scanning exposed to a light, and then color developing treated. The material can be quickly processed, and has stable color d. during continuously processing.

IT 184947-09-9

RL: TEM (Technical or engineered material use); USES (Uses)

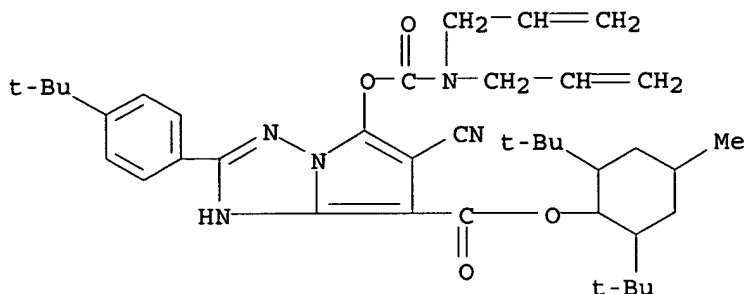
(cyan coupler; silver halide photog. photosensitive material contg. pyrazolotriazole cyan coupler)

RN 184947-09-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[4-(1,1-

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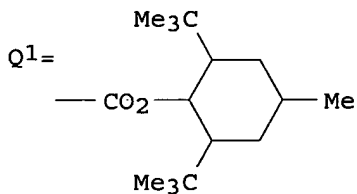
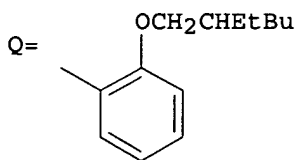
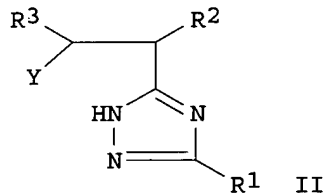
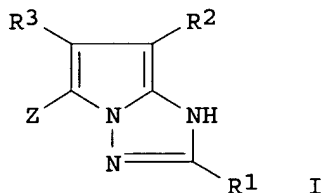
dimethylethyl)phenyl]-5-[[[(di-2-propenylamino)carbonyl]oxy]-,
2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1995:652357 CAPLUS
 DOCUMENT NUMBER: 123:55892
 TITLE: Method for preparation of 1H-pyrrolo[1,2-b][1,2,4]triazole derivative
 INVENTOR(S): Ito, Takayuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07048376	A2	19950221	JP 1993-212194	19930804
JP 3274555	B2	20020415		

OTHER SOURCE(S): CASREACT 123:55892; MARPAT 123:55892
 GI



AB The title compds. [I; R1 = alkyl, aryl; R2, R3 = electron-withdrawing group having a Hammett .sigma.p value of 0.2-1.0; Y = group which is condensed with the triazole in the mol. and is capable of forming a

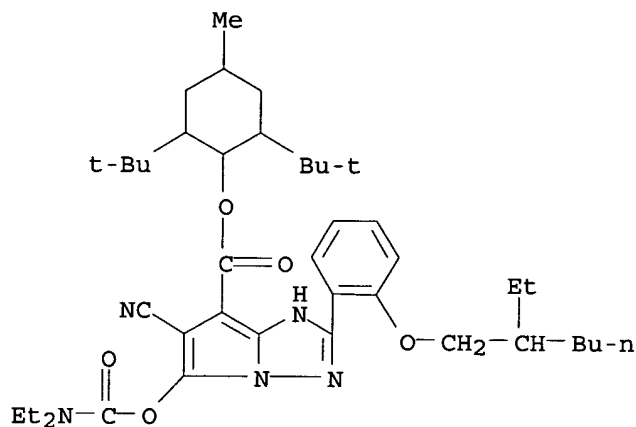
1H-pyrrolo[1,2-b][1,2,4]triazole ring; Z = group which is formed as the result of the intramol. condensation of Y with the triazole ring, in particular Z = OR₄; wherein R₄ = COR₄₁, CO₂R₄₂, CONR₄₃R₄₄, SO₂R₄₅, P(O)R₄₆R₄₇; R₄₁ - R₄₅ = H, alkyl, aryl; R₄₆, R₄₇ = H, alkyl, aryl, alkoxy, aryloxy] are prepd. by cyclocondensation of triazole derivs. (R₁, R₂, R₃, Y = same as above) with an acyl halide, in particular R₄X (R₄ = same as above; X = halo) in the presence of a base. These compds. I are useful as intermediates for biol. active compds. such as pharmaceuticals and agrochems., photog. couplers, various dyes, and dyes for thermal transfer dye-yielding material. Thus, iso-Bu chloroformate and Et₃N were successively added dropwise to a soln. of 3-(2-carboxyethyl)-1,2,4-triazole deriv. (R₁ = Q, R₂ = Q₁, R₃ = cyano, Y = HO₂C) in EtOAc at 0.degree. and the resulting mixt. was allowed to react at 0.degree. for 15 min to give I (Z = iso-BuO₂CO, R₁ = Q, R₂ = Q₁, R₃ = cyano).

IT 164392-58-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 1H-pyrrolo[1,2-b][1,2,4]triazole deriv. by cyclocondensation of (carboxyethyl)pyrrolo[1,2-b][1,2,4]triazole derivs. with acyl halides)

RN 164392-58-9 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-5-[[[(diethylamino)carbonyl]oxy]-2-[2-[(2-ethylhexyl)oxy]phenyl]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



(19) 日本国特許庁 (J P)

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(54) 【発明の名称】 ハロゲン化銀カラー写真感光材料

(57) 【要約】

【課題】熱現像処理及び湿式現像処理の双方で優れた写真特性が得られるハロゲン化銀カラー写真感光材料を提供する。

【解決手段】分子内に4当量マゼンタカブラー残基と2当量マゼンタカブラー残基をもつマゼンタカブラー又は／及び、分子内に4当量イエローカブラー残基と2当量イエローカブラー残基をもつイエローカブラー又は／及び、分子内に4当量シアンカブラー残基と2当量シアンカブラー残基をもつシアンカブラーを少なくとも一層の親水性コロイド層に含有させる。

【特許請求の範囲】

【請求項1】 少なくとも一層のハロゲン化銀乳剤層を有するハロゲン化銀カラー写真感光材料において、分子内に少なくとも一個の4当量マゼンタカプラー残基及び少なくとも一個の2当量マゼンタカプラー残基を有するマゼンタカプラー、又は/及び分子内に少なくとも一個の4当量イエローカプラー残基及び少なくとも一個の2当量イエローカプラー残基を有するイエローカプラー、又は/及び分子内に少なくとも一個の4当量シアンカプラー残基及び少なくとも一個の2当量シアンカプラー残基を有するシアンカプラーを少なくとも一種含有することを特徴とするハロゲン化銀カラー写真感光材料。

【請求項2】 分子内に4当量マゼンタカプラー残基及び2当量マゼンタカプラー残基を有するマゼンタカプラーが、下記一般式(I)で表わされる請求項(1)に記載のハロゲン化銀カラー写真感光材料。

一般式(I) $A_1 - (L_1) - B_1$

式中、 A_1 は4当量マゼンタカプラー残基を表わし、 B_1 は2当量マゼンタカプラー残基を表わし、 L_1 は2価の連結基を表わす。

【請求項3】 分子内に4当量イエローカプラー及び2当量イエローカプラーを有するイエローカプラーが、下記一般式(II)で表わされる請求項(1)に記載のハロゲン化銀カラー写真感光材料。

一般式(II) $A_2 - (L_2) - B_2$

式中、 A_2 は4当量イエローカプラー残基を表わし、 B_2 は2当量イエローカプラー残基を表わし、 L_2 は2価の連結基を表わす。

【請求項4】 分子内に4当量シアンカプラー及び2当量シアンカプラーを有するシアンカプラーが、下記一般式(III)で表わされる請求項1に記載のハロゲン化銀カラー写真感光材料。

一般式(III) $A_3 - (L_3) - B_3$

式中、 A_3 は4当量シアンカプラー残基を表わし、 B_3 は2当量シアンカプラー残基を表わし、 L_3 は2価の連結基を表わす。

【請求項5】 更にp-スルホンアミドフェノール系化合物を含有することを特徴とする請求項1記載のハロゲン化銀カラー写真感光材料。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明はハロゲン化銀カラー写真感光材料に関するものであり、熱現像処理及び湿式現像処理の双方で優れた写真特性が得られるハロゲン化銀カラー写真感光材料に関するものである。

【0002】

【従来の技術】現在、広く実用に供されているハロゲン化銀カラー写真感光材料(以下ではコンベンショナル感光材料と呼ぶ)としては、カラーネガフィルム、カラーリバーサルフィルム、カラーパーパー等の感光材料が知

られている。これらの感光材料は感光材料中にカプラーを内蔵し、現像液中に現像主薬である芳香族一級アミン系化合物を含有させ、現像処理を行うことによってカラー画像を得る。いわゆる湿式現像処理方式である。この方式に用いられているイエローカプラー、マゼンタカプラー及びシアンカプラーは、発色性、画像保存性等の写真特性を得るために2当量カプラーが主流に用いられ、現像主薬としてはp-フェニレンジアミン系の現像主薬が用いられている。一方、近年になってハロゲン化銀カラー写真感光材料の画像処理方法を、従来の湿式処理方式から現像主薬を内蔵するインスタント写真システム、更に、現像主薬を内蔵し加熱現像する処理等により簡易迅速に画像を得る事のできるシステムが開発されてきた。これらの熱現像カラー感光材料としては、富士写真フイルム(株)社からピクトログラフィー、ピクトロスタットといった商品が発売されている。この簡易迅速処理方法では、プレホームド色素を連結したレドックス化合物(以下では色材と呼ぶ)を用いて画像形成を行っている。一方、カプラーと現像主薬の酸化体とのカップリング反応を利用した熱現像カラー感光材料が、米国特許第3,761,270号、同4,021,240、特開昭59-231539号、及び同60-128438号等に開示されており、これらの特許においては、p-スルホンアミドフェノール系化合物が現像主薬として用いられている。このカプラーと現像主薬の酸化体とのカップリング反応を利用した熱現像カラー感光材料は、色材を用いて画像を形成する熱現像カラー感光材料に比べてカプラーが処理前には可視域に吸収を持たないために、色材を用いた感光材料に比べて感度の点で有利である。プリント系材料のみならず撮影系材料としても使用できる利点がある。

【0003】

【発明が解決しようとする課題】このように簡易、迅速処理の観点から熱現像用のp-スルホンアミドフェノール系の現像主薬の研究が進められ、欧州公開特許第0764876号には感光材料に内蔵した場合にディスクリミネーションに優れた色画像を与えるp-スルホンアミドフェノール系の現像主薬が開示された。これらのp-スルホンアミドフェノール系現像主薬を用いる場合にはイエロー、マゼンタ及びシアンカプラーは4当量カプラーが好ましい。一方、これらの熱現像カラー感光材料を、p-フェニレンジアミン系現像主薬を用いる従来の湿式現像処理すると十分な写真特性が得られない。この様なことから、感光材料を共通化し、一種のハロゲン化銀カラー写真感光材料で湿式現像処理及び熱現像処理にも適した感光材料が望まれた。

【0004】(発明の目的)本発明の目的は、熱現像処理においても湿式現像処理においても十分な写真特性が得られるハロゲン化銀カラー写真感光材料を提供することにある。

【0005】

【課題を解決するための手段】本発明の課題は、

(1) 少なくとも一層のハロゲン化銀乳剤層を有するハロゲン化銀カラー写真感光材料において、分子内に少なくとも一個の4当量マゼンタカブラー残基及び少なくとも一個の2当量マゼンタカブラー残基を有するマゼンタカブラー、又は/及び分子内に少なくとも一個の4当量イエローカブラー残基及び少なくとも一個の2当量イエローカブラー残基を有するイエローカブラー、又は/及び分子内に少なくとも一個の4当量シアンカブラー残基及び少なくとも一個の2当量シアンカブラー残基を有するシアンカブラーを少なくとも一種含有することを特徴とするハロゲン化銀カラー写真感光材料。

(2) 分子内に4当量マゼンタカブラー残基及び2当量マゼンタカブラー残基を有するマゼンタカブラーが、下記一般式(I)で表わされる請求項(1)に記載のハロゲン化銀カラー写真感光材料。

一般式(I) $A_1 - (L_1) - B_1$

式中、 A_1 は4当量マゼンタカブラー残基を表わし、 B_1 は2当量マゼンタカブラー残基を表わし、 L_1 は2価の連結基を表わす。

(3) 分子内に4当量イエローカブラー残基及び2当量イエローカブラー残基を有するイエローカブラーが、下記一般式(II)で表わされる請求項(1)に記載のハロゲン化銀カラー写真感光材料。

一般式(II) $A_2 - (L_2) - B_2$

式中、 A_2 は4当量イエローカブラー残基を表わし、 B_2 は2当量イエローカブラー残基を表わし、 L_2 は2価の連結基を表わす。

(4) 分子内に4当量シアンカブラー残基及び2当量シアンカブラー残基を有するシアンカブラーが、下記一般式(III)で表わされる請求項1に記載のハロゲン化銀カラー写真感光材料。

一般式(III) $A_3 - (L_3) - B_3$

式中、 A_3 は4当量シアンカブラー残基を表わし、 B_3 は2当量シアンカブラー残基を表わし、 L_3 は2価の連結基を表わす。

(5) 更にp-スルホンアミドフェノール系化合物を含有することを特徴とする請求項1記載のハロゲン化銀カラー写真感光材料。によって達成された。

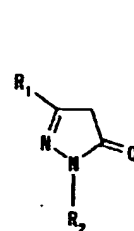
【0006】

【発明の実施の形態】一般式(I)で表わされるマゼンタカブラーの A_1 、 B_1 及び L_1 について詳しく説明する。一般式(I)で表わされるマゼンタカブラーの A_1 は、下記一般式(IV)または一般式(V)で表わされる4当量マゼンタカブラー残基を表わし、 B_1 は下記一般式(VI)又は(VII)で表わされる2当量マゼンタカブラー残基を表わし、 L_1 は2価の連結基を表わす。

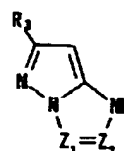
【0007】

【化1】

一般式(N)



一般式(V)

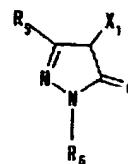


【0008】式中、 R_1 は水素原子又は置換基を表わし、 R_2 はアルキル基、シクロアルキル基、アルケニル基、アリール基、またはヘテロ環基を表わし、 R_3 は水素原子または置換基を表わし、 Z_1 及び Z_2 は=N-または=C(R_4)-を表わす。 R_4 は水素原子又は置換基を表わす。 A_1 が一般式(IV)のとき、 R_1 または R_2 のいずれか一方と連結基 L_1 の片方の結合手とが結合し、 A_1 が一般式(V)のとき、 R_3 または R_4 のいずれか一方と連結基 L_1 の片方の結合手とが結合する。

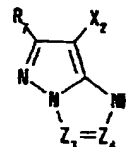
【0009】

【化2】

一般式(VI)



一般式(VII)



【0010】式中、 R_5 は水素原子又は置換基を表わし、 R_6 はアルキル基、シクロアルキル基、アルケニル基、アリール基またはヘテロ環基を表わす。 X_1 は現像主薬の酸化体とのカップリング反応で離脱する離脱基を表わす。 R_7 は水素原子または置換基を表わし、 Z_3 及び Z_4 は=N-または=C(R_8)-を表わし、 X_2 は現像主薬の酸化体とのカップリング反応で離脱する離脱基を表わす。 R_8 は水素原子または置換基を表わす。 B_1 が一般式(VI)のとき、 R_5 、 R_6 又は X_1 のいずれか一方と連結基 L_1 の片方の結合手とが結合し、 B_1 が一般式(VII)のとき、 R_7 、 R_8 または X_2 のいずれか一方と連結基 L_1 のもう一方の結合手とが結合する。

【0011】一般式(IV)〜一般式(VII)の置換基

R₁、R₂、R₃、R₄、R₅、R₆、R₇、R₈、X₁及びX₂について更に詳しく説明する。R₁は水素原子又は置換基を表わし、置換基は、ハロゲン原子(例えば、フッ素、塩素、臭素)、アルキル基(好ましくは炭素数1〜40の、直鎖又は分岐鎖のアルキル基で、例えば、メチル、エチル、プロピル、ブチル、イソプロピル、イソブチル、*tert*-ブチル、2-エチルヘキシル、オクチル、トリデシル、トリフロロメチル)、

【0012】シクロアルキル基(好ましくは炭素数3〜40のシクロアルキル基で、例えば、シクロプロピル、1-エチルシクロプロピル、シクロペンチル、シクロヘキシル、1-ノルボルニル、1-アダマンチル)、アルケニル基(好ましくは炭素数2〜40のアルケニル基で、例えば、ビニル、アリル、3-ブテン-1-イル)、アリール基(好ましくは炭素数6〜38のアリール基で、例えば、フェニル、1-ナフチル、2-ナフチル)、ヘテロ環基(好ましくは炭素数1〜40の、5〜8員環のヘテロ環基で、例えば、2-チエニル、4-ピリジル、2-フリル、2-ピリジル、1-ピリジル、2-ベンゾチアゾリル、1-イミダゾリル、1-ピラゾリル、ベンゾトリアゾール-2-イル)、シアノ基、シリル基(好ましくは炭素数3〜40のシリル基で、例えば、トリメチルシリル、トリエチルシリル、トリブチルシリル、*tert*-ブチルジメチルシリル、*tert*-ヘキシルジメチルシリル)、ヒドロキシ基、カルボキシ基、ニトロ基、アルコキシ基(好ましくは炭素数1〜48のアルコキシ基で、例えば、メトキシ、エトキシ、プロピルオキシ、ブトキシ、イソプロピルオキシ、*tert*-ブトキシ、ドデシルオキシ)、シクロアルキルオキシ基(好ましくは炭素数3〜48のシクロアルキルオキシ基で、例えば、シクロペンチルオキシ、シクロヘキシルオキシ)、アリールオキシ基(好ましくは炭素数6〜48のアリールオキシ基で、例えば、フェノキシ、1-ナフトキシ、2-ナフトキシ)、ヘテロ環オキシ基(好ましくは炭素数1〜40ヘテロ環オキシ基で、例えば、1-フェニルテトラゾール-5-オキシ、2-テトラヒドロピラニルオキシ、2-フリルオキシ)、シリルオキシ基(好ましくは炭素数1〜40のシリルオキシ基で、例えば、トリメチルシリルオキシ、*tert*-ブチルジメチルシリルオキシ、ジフェニルメチルシリルオキシ)、アシルオキシ基(好ましくは炭素数2〜48のアシルオキシ基で、例えば、アセトキシ、ヒバロイルオキシ、ベンゾイルオキシ、ドデカノイルオキシ)、アルコキシカルボニルオキシ基(好ましくは炭素数2〜50のアルコキシカルボニルオキシ基で、例えば、エトキシカルボニルオキシ、2-エチルヘキシルオキシカルボニルオキシ、*tert*-ブトキシカルボニルオキシ)、

【0013】シクロアルキルオキシカルボニルオキシ基(好ましくは炭素数4〜48のシクロアルキルオキシカル

ボニルオキシ基で、例えば、シクロヘキシルオキシカルボニルオキシ)、アリールオキシカルボニルオキシ基(好ましくは炭素数7〜48のアリールオキシカルボニルオキシ基で、例えば、フェノキシカルボニルオキシ)、カルバモイルオキシ基(好ましくは炭素数1〜48のカルバモイルオキシ基で、例えば、N、N-ジメチルカルバモイルオキシ、N-ブチルカルバモイルオキシ、1-モルホリノカルバモイルオキシ)、スルファモイルオキシ基(好ましくは炭素数1〜40のスルファモイルオキシ基で、例えば、N、N-ジエチルスルファモイルオキシ、N-プロピルスルファモイルオキシ、N-フェニルスルファモイルオキシ)、アルカンスルホニルオキシ基(好ましくは炭素数1〜40のアルカンスルホニルオキシ基で、例えば、メタンスルホニルオキシ、ヘキサデカンスルホニルオキシ)、アレーンスルホニルオキシ基(好ましくは炭素数6〜40のアレーンスルホニルオキシ基で、例えば、ベンゼンスルホニルオキシ)、アシル基(好ましくは炭素数1〜48のアシル基で、例えば、ホルミル、アセチル、ヒバロイル、ベンゾイル、テトラデカノイル)、アルコキシカルボニル基(好ましくは炭素数2〜48のアルコキシカルボニル基で、例えば、メトキシカルボニル、エトキシカルボニル、2-エチルヘキシルオキシカルボニル、オクタデシルオキシカルボニル)、シクロアルキルオキシカルボニル基(好ましくは炭素数4〜40のシクロアルキルオキシカルボニル基で、例えば、シクロヘキシルオキシカルボニル)、アリールオキシカルボニル基(好ましくは炭素数7〜40のアリールオキシカルボニル基で、例えば、フェノキシカルボニル)、カルバモイル基(好ましくは炭素数1〜48のカルバモイル基で、例えば、カルバモイル、N、N-ジブチルカルバモイル、N-エチル-N-オクチルカルバモイル、N-プロピルカルバモイル、N-フェニルカルバモイル)、アミノ基(好ましくは炭素数40以下のアミノ基で、例えば、アミノ、メチルアミノ、N、N-ジブチルアミノ、N、N-ジオクチルアミノ、テトラデシルアミノ、オクタデシルアミノ)、アニリノ基(好ましくは炭素数6〜40のアニリノ基で、例えば、アニリノ、N-メチルアニリノ)、ヘテロ環アミノ基(好ましくは炭素数1〜40のヘテロ環アミノ基で、例えば、4-ピリジルアミノ)、

【0014】カルボンアミド基(好ましくは炭素数2〜48のカルボンアミド基で、例えば、アセトアミド、ブタンアミド、ヘキサデカンアミド、ベンズアミド)、ウレイド基(好ましくは炭素数1〜40のウレイド基で、例えば、N、N-ジメチルウレイド、N-フェニルウレイド)、イミド基(好ましくは炭素数40以下のイミド基で、例えば、N-スクシンイミド、N-フタルイミド、ヘキサデセニルスクシンイミド)、アルコキシカルボニルアミノ基(好ましくは炭素数2〜48のアルコキシカルボニルアミノ基で、例えば、メトキシカルボニル

アミノ、エトキシカルボニルアミノ、トープトキシカルボニルアミノ、オクタデシルオキシカルボニルアミノ)、シクロアルキルオキシカルボニルアミノ基(好ましくは炭素数4~40のシクロアルキルカルボニルアミノ基で、例えば、シクロヘキシルオキシカルボニルアミノ)、アリールオキシカルボニルアミノ基(好ましくは炭素数7~40のアリールオキシカルボニルアミノ基で、例えば、フェノキシカルボニルアミノ)、スルホンアミド基(好ましくは炭素数1~48のスルホンアミド基で、例えば、メタンスルホンアミド、ブタンスルホンアミド、オクタンスルホンアミド、ベンゼンスルホンアミド、ヘキサデカンスルホンアミド)、スルファモイルアミノ基(好ましくは炭素数1~48のスルファモイルアミノ基で、例えば、N、N-ジプロピルスルファモイルアミノ、N-エチル-N-ドデシルスルファモイルアミノ、N-フェニルスルファモイルアミノ)、アゾ基(好ましくは炭素数1~40のアゾ基、例えば、フェニルアゾ、ナフチルアゾ、チアゾリルアゾ、オキサゾリルアゾ、イミダゾリルアゾ、ピラゾリルアゾ)、アルキルチオ基(好ましくは炭素数1~48のアルキルチオ基で、例えば、エチルチオ、ブチルチオ、オクチルチオ、ヘキサデシルチオ、2-エチルヘキシルチオ)、シクロアルキルチオ基(好ましくは炭素数3~48のシクロアルキルチオ基で、例えば、シクロヘキシルチオ)、アリールチオ基(好ましくは炭素数6~48のアリールチオ基で、例えば、フェニルチオ、ナフチルチオ)、ヘテロ環チオ基(好ましくは炭素数1~40のヘテロ環チオ基で、例えば、2-ベンゾチアゾリルチオ、2-ピリジルチオ、1-フェニルテトラゾリルチオ)、

【0015】アルキルスルフィニル基(好ましくは炭素数1~40のアルキルスルフィニル基で、例えば、オクタンスルフィニル、ドデカンスルフィニル)、アレーンスルフィニル基(好ましくは炭素数6~4のアレーンスルフィニル基で、例えば、ベンゼンスルフィニル)、アルカンスルホニル基(好ましくは炭素数1~48のアルカンスルホニル基で、例えば、メタンスルホニル、エタンスルホニル、ブタンスルホニル、オクタンスルホニル、イソプロピルスルホニル、テトラデカンスルホニル)、アレーンスルホニル基(好ましくは炭素数6~48のアレーンスルホニル基で、例えば、ベンゼンスルホニル、ナフタレンスルホニル)、シクロアルカンスルホニル基(好ましくは炭素数3~40のシクロアルカンスルホニル基で、例えば、シクロヘキサンスルホニル)、アルコキシスルホニル基(好ましくは炭素数1~48のアルコキシスルホニル基で、例えば、メトキシスルホニル、エトキシスルホニル、ドデシルオキシスルホニル)、シクロアルキルオキシスルホニル基(好ましくは炭素数3~40のシクロアルキルオキシスルホニル基で、例えば、シクロプロピルオキシスルホニル)、アリールオキシスルホニル基(好ましくは炭素数6~40の

アリールオキシスルホニル基で、例えば、フェノキシスルホニル、p-メチルフェノキシスルホニル)、スルファモイル基(好ましくは炭素数48以下のスルファモイル基で、例えば、N、N-ジプロピルスルファモイル、N-エチル-N-ドデシルスルファモイル、N-フェニルスルファモイル、N-エチル-N-フェニルスルファモイル)、スルホ基、ホスホニル基(好ましくは炭素数1~48のホスホニル基で、例えば、フェノキシホスホニル、オクチルオキシホスホニル、フェニルホスホニル)、ホスフィノイルアミノ基(好ましくは炭素数1~40のホスフィノイルアミノ基で、例えば、ジエトキシホスフィノイルアミノ、ジオクチルオキシホスフィノイルアミノ)を表わす。これらの置換基は、ここで挙げた置換基を更に有していてもよい。

【0016】R₂ は、アルキル基、シクロアルキル基、アリール基、またはヘテロ環基を表わし、それらに好ましい炭素数及び具体例は、前記R₁ で説明したアルキル基、シクロアルキル基、アルケニル基、アリール基、及びヘテロ環基と同じである。

【0017】一般式(V)で表わされる4当量マゼンタカブラーのR₃ は水素原子又は置換基を表わし、その置換基は前記R₁ の置換基で説明したのと同じ意味の基を表わす。Z₁ 及びZ₂ は、それぞれ独立に=N-又は=C(R₄)-を表し、R₄ は水素原子又は置換基を表わす。その置換基は、前記R₁ で説明した置換基と同じ意味の基を表わす。

【0018】一般式(VI)で表される2当量マゼンタカブラーのR₅ は、R₁ と同じ意味の基を表わし、R₆ はR₂ と同じ意味の基を表わす。X₁ は、現像主薬の酸化物とのカップリングにより離脱する基を表わし、例えば、ハロゲン原子(例えば、フッ素、塩素、臭素、沃素)、アルコキシ基(例えば、欧州特許第423,727号記載の離脱基)、アリールオキシ基(例えば、欧州特許第428,902号、同299,726号記載の離脱基)、アルキルチオ基(例えば、特開昭56-126833号記載の離脱基)、アリールチオ基(例えば、米国特許第4,351,897号、特開平2-160233号記載の離脱基)、窒素原子で離脱するヘテロ環基及びイミド基(例えば、特開昭56-38044号、特公昭58-10739号、同6-54134号、同56-45135号記載の離脱基)、ヘテロ環チオ基、米国特許第4,072,525号、特開平5-34878号、同5-313322号、欧州特許第514,896号、特開平6-347960号、及び特開平7-48376号に記載の離脱基、スルホニル基、スルフェニル基、カルボニルオキシ基、またはカルバモイルオキシ基等が挙げられる。

【0019】具体的には、窒素原子で離脱する基としては、例えばイミド基(例えば、コハク酸イミド、フタル酸イミド、ヒダントイン-1-イル)、ピラゾリル基、

イミダゾリル基、トリアゾリル基等が挙げられる。これらの基は5員または6員のヘテロ環又は芳香族環と縮合していてもよく、また、前記R₁で説明したの置換基と同じ意味の基で置換されていてもよい。アルキルチオ基としては、具体的には、炭素数1~36、好ましくは2~32のアルキルチオ基で、例えば、2-ヒドロキシエチルチオ、エトキシカルボニルメチルチオ、カルボキシメチルチオ、2-カルボキシエチルチオ、ドデシルチオ、1-エトキシカルボニルドデシルチオ、ヘキシロキシエチルチオ、ベンジルチオ、1-ベンジロキシカルボニルオクチルチオ等の基が挙げられる。アリールチオ基としては、具体的には、炭素数6~48、好ましくは6~24のアリールチオ基で、例えば、フェニルチオ、2-ブトキシ-5-(t)-オクチルフェニルチオ、2-ピバロイルフェニルチオ、2-ベンジロキシカルボニルフェニルチオ等の基が挙げられる。

【0020】アリールオキシ基としては、具体的には、炭素数6~48、好ましくは6~24のアリールオキシ基で、例えば、フェノキシ、4-メチルフェノキシ、4-メトキシフェノキシ、4-メトキシカルボニルフェノキシ、4-tert-ブチルフェノキシ、4-tert-オクチルフェノキシ、4-シアノフェノキシ、4-メチルスルホニルフェノキシ、2-カルバモイル4-メトキシフェノキシ、4-カルボキシフェノキシ、4-クロロフェノキシ、3-エチルフェノキシ等が挙げられる。

【0021】スルホニル基としては、炭素数1~48、好ましくは6~24のスルホニル基で、例えば、メチルスルホニル、エチルスルホニル、ドデシルスルホニル、フェニルスルホニル等の基が挙げられる。スルフィニル基としては、炭素数1~48、好ましくは6~24のスルホニル基で、例えば、メチルスルフィニル、エチルスルフィニル、ヘキサデシルスルフィニル、フェニルスルフィニル等の基が挙げられる。アシルオキシ基としては、具体的には、炭素数2~48、好ましくは2~24のカルボニルオキシ基で、例えば、アセトキシ、ベンゾイルオキシ等が挙げられる。カルバモイルオキシ基としては、具体的には、炭素数2~48、好ましくは2~24のカルバモイルオキシ基で、例えば、N、N-ジメチルカルバモイルオキシ、N-メチル-N-フェニルカルバモイルオキシ、モルホリノカルボニルオキシ、ピペリジノカルボニルオキシ等が挙げられる。

【0022】一般式(VII)で表わされる2当量マゼンタカブラーのR₇はR₃と同じ意味の基を表わし、Z₃及びZ₄はZ₁及びZ₂と同じ意味の基を表わす。R₈はR₄と同じ意味の基を表わし、X₂はX₁と同じ意味の基を表わす。

【0023】L₁は2価の連結基を表し、アルキレン基、シクロアルキレン基、アルケニレン基、アリーレン基、2価のヘテロ環基、-O-、-S-、-SO₂-、-SO-、-C(=O)O-、-C(=O)N(R₉)

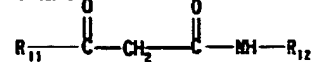
-、-N(R₉)C(=O)N(R₁₀)-、-SO₂O-、-SO₂N(R₉)-、-N(R₉)SO₂N(R₁₀)-、-N(R₉)C(=O)O-、-P(R₉)-、-P(=O)(R₉)-、または-N(R₉)P(=O)(R₁₀)-を表す。L₁は、これらの基が2個以上結合して、更に2価の連結基を形成してもよい。R₉及びR₁₀は、それぞれ独立に水素原子、アルキル基、シクロアルキル基、アルケニル基、アリール基又はヘテロ環基を表す。R₉及びR₁₀のアルキル基、シクロアルキル基、アルケニル基、アリール基、及びヘテロ環基の好ましい炭素数、具体例はR₁で説明したそれと同じである。

【0024】次に一般式(II)で表されるイエローカブラーについて説明する。A₂は下記一般式(VIII)及び一般式(IX)で表される4当量イエローカブラー残基を表わし、B₂は下記一般式(X)及び(XI)で表される2当量イエローカブラー残基を表わし、L₂は前記L₁で説明したのと同じ意味の2価の連結基を表わす。

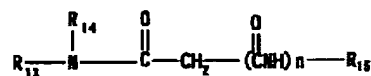
【0025】

【化3】

一般式(VIII)



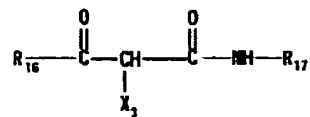
一般式(IX)



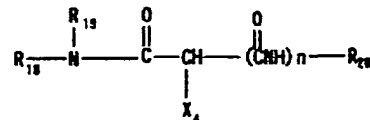
【0026】

【化4】

一般式(X)



一般式(XI)



【0027】式中、R₁₁、R₁₂、R₁₃、R₁₄、R₁₅、R₁₆、R₁₇、R₁₈、R₁₉、及びR₂₀はそれぞれ独立に、アルキル基、シクロアルキル基、アルケニル基、アリール基、またはヘテロ環基を表す。X₃及びX₄は発色現像主薬の酸化体とのカップリングにより離脱する基を表す。nは0または1を表す。

【0028】R₁₁~R₂₀、X₃、X₄を更に詳しく説明する。R₁₁~R₂₀のアルキル基は、炭素数1~52、好

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ましくは1~24、より好ましくは1~12の置換又は無置換の、直鎖または分岐鎖のアルキル基を表し、例えば、メチル、エチル、プロピル、ブチル、ペンチル、ヘキシル、ヘプチル、オクチル、イソプロピル、イソブチル、2-エチルヘキシル、ト-ブチル、ト-オクチル等が挙げられる。置換アルキル基の置換基は前記のR₁で説明した置換基と同じ意味の基を表わす。

【0029】シクロアルキル基は、炭素数3~48、好ましくは3~24、より好ましくは3~18の置換又は無置換のシクロアルキル基で、例えば、シクロプロピル、シクロブチル、シクロペンチル、シクロヘキシル、1-ノルボルニル、アダマンチル等が挙げられる。置換シクロアルキル基の置換基は前記のR₁で説明した置換基と同じ意味の基を表わす。

【0030】アルケニル基は、炭素数2~48、好ましくは2~24、より好ましくは2~18の置換又は無置換のアルケニル基で、例えば、エチニル、プロペニル、ブテニル、ヘキセニル、ヘキサデセニル、オクタデセニル等が挙げられる。置換アルケニルの置換基は前記のR₁で説明した置換基と同じ意味の基を表わす。アリール基は、炭素数6~48、好ましくは6~24、より好ましくは6~18の置換または無置換のアリール基で、例えば、フェニル、ナフチル等が挙げられる。置換アリール基の置換基は前記のR₁で説明した置換基と同じ意味の基を表わす。ヘテロ環基は、窒素原子、酸素原子または硫黄原子を少なくとも一個以上有し3~12、好ましくは5~7員の単環又は縮合環を表し、前記のR₁で説明した置換基を有していてもよい。

【0031】X₃及びX₄は発色現像主薬の酸化体とのカップリングにより離脱する基を表し、前記のX₁で説明したのと同じ意味の基を表す。A₂が一般式(VIII)のとき、R₁₁またはR₁₂のいずれか一方と連結基L₂の片方の結合手とが結合し、A₂が一般式(IX)のとき、R₁₃、R₁₄またはR₁₅のいずれか一方と連結基L₂の片方の結合手とが結合し、B₂が一般式(X)のときR₁₆、R₁₇またはX₃のいずれかとL₂のもう一方の結合手とが結合し、B₂が一般式(XI)のとき、R₁₈、R₁₉、R₂₀またはX₄のいずれかとL₂のもう一方の結合手とが結合する。

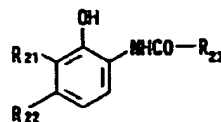
【0032】次に一般式(III)で表されるシアンカプラーについて説明する。一般式(III)で表されるシアンカプラーのA₃は、下記一般式(XII)、一般式(XIII)、一般式(XIV)、又は一般式(XV)で表される4当量シアンカプラーを表し、B₃は下記一般式(XVI)、一般式(XVII)、一般式(XVIII)及び一般式(XIX)で表される2当量シアンカプラー残基を表わし、L₃は前記L₁で説明したのと同じ意味の2価の連結基を表わす。

【0033】

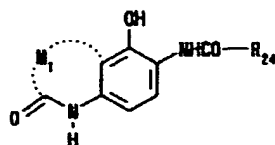
【化5】

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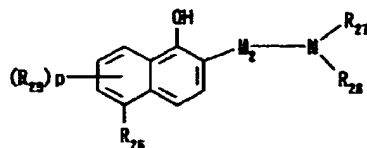
一般式(XII)



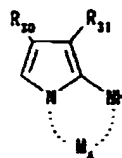
一般式(XIII)



一般式(XIV)



一般式(XV)



【0034】式中、R₂₁、R₂₂、R₂₅、R₃₀及びR₃₁は水素原子又は置換基を表し、その置換基は前記のR₁で説明した置換基と同じ意味の基を表わす。R₂₃およびR₂₄はアルキル基、シクロアルキル基、アルケニル基、アリール基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環基、アルキルアミノ基、シクロアルキルアミノ基、アリールアミノ基、ヘテロ環アミノ基、アルキルカルバモイル基、シクロアルキルカルバモイル基、アリールカルバモイル基、アルキルスルファモイル基、シクロアルキルスルファモイル基、又はアリールスルファモイル基を表し、それらの好ましい炭素数及び具体例は前記のR₁で説明したのと同じである。R₂₆は水素原子または-NH-(M₃)-R₂₉を表わし、M₃は-CO-又は-SO₂-を表す。R₂₉はアルキル基、シクロアルキル基、アルケニル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環オキシ基、アルキルアミノ基、シクロアルキルアミノ基、又はアリールアミノ基を表し、これらの基の好ましい炭素数及び具体例は前記のR₁で説明したのと同じである。R₂₇及びR₂₈は水素原子、アルキル基、シクロアルキル基、アルケニル基、アリール基、アシル基、スルホニル基、又はヘテロ環基を

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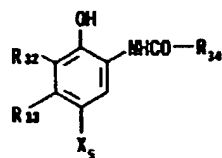
表し、これらの基の好ましい炭素数及び具体例は前記の R_1 で説明したのと同じである。

【0035】 M_1 は縮合したベンゼン環と共に5員、6員又は7員環を形成するために必要な非金属原子群を表し、 M_2 は $-CO-$ 又は $-SO_2-$ を表し、 p は0~3の整数を表す。 M_4 はピロール環とともに5員、6員または7員環を形成するために必要な非金属原子群を表す。 $R_{21} \sim R_{31}$ または $M_1 \sim M_4$ のいずれかが L_3 の一方の結合手と結合する。

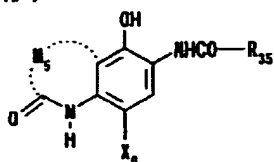
【0036】

【化6】

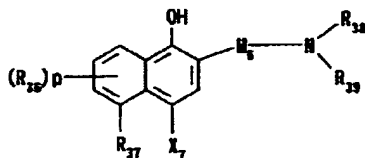
一般式 (XVI)



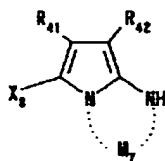
一般式 (XVII)



一般式 (XVIII)



一般式 (XIX)



【0037】式中、 R_{32} 、 R_{33} 、 R_{36} 、 R_{41} 及び R_{42} は、それぞれ R_{21} 、 R_{22} 、 R_{25} 、 R_{30} 及び R_{31} と同じ意味の基を表し、 R_{34} 及び R_{35} は R_{23} および R_{24} と同じ意味の基を表す。 R_{37} は R_{26} と同じ意味の基を表し、 R_{38} 及び R_{39} は R_{27} 及び R_{28} と同じ意味の基を表す。 M_5 は M_1 と同じ意味の基を表し、 M_6 は M_2 と同じ意味の基を表す。 p は0~3の整数を表し、 M_7 は M_4 と同じ意味の基を表し、 X_5 、 X_6 、 X_7 及び X_8 は前記X

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1と同じ意味の基を表す。 $R_{32} \sim R_{42}$ 、 $M_5 \sim M_7$ 、または $X_5 \sim X_8$ のいずれかと L_3 のもう一方の結合手が結合する。

【0038】次に一般式 (I) で表されるマゼンタカブラーの好ましい範囲について説明する。 A_1 は、一般式 (IV) の R_1 がアルキル基、シクロアルキル基、アルケニル基、アリール基、ヘテロ環基、アシル基、アルコキシカルボニル基、シクロアルキルオキシカルボニル基、アリールオキシカルボニル基、カルバモイル基、アミノ基、アニリノ基、ヘテロ環アミノ基、カルボンアミド基、ウレイド基、イミド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基、スルホンアミド基、スルファモイルアミノ基、スルファモイル基、又はホスフィノイルアミノ基で、 R_2 がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で表される4当量マゼンタカブラー残基、又は、一般式 (V) の R_3 がアルキル基、シクロアルキル基、アルケニル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環基、ヘテロ環オキシ基、アミノ基、アニリノ基、ヘテロ環アミノ基、カルボンアミド基、ウレイド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基又はスルホンアミド基で、 Z_1 が $N-$ で Z_2 が $C(R_4)-$ 、または Z_1 が $C(R_4)-$ で Z_2 が $N-$ で、 R_4 がアルキル基、シクロアルキル基、アルケニル基、アリール基、またはヘテロ環基で表される4当量マゼンタカブラー残基で、

【0039】 B_1 は、一般式 (VI) の R_5 がアルキル基、シクロアルキル基、アルケニル基、アリール基、ヘテロ環基、アシル基、アルコキシカルボニル基、シクロアルキルオキシカルボニル基、アリールオキシカルボニル基、カルバモイル基、アミノ基、アニリノ基、ヘテロ環アミノ基、カルボンアミド基、ウレイド基、イミド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基、スルホンアミド基、スルファモイルアミノ基、スルファモイル基、又はホスフィノイルアミノ基で、 R_6 がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、 X_1 がアルキルチオ基、アリールチオ基、ヘテロ環チオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基、又は、一般式 (VII) の R_7 がアルキル基、シクロアルキル基、アルケニル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環オキシ基、アミノ基、アニリノ基、ヘテロ環アミノ基、カルボンアミド基、ウレイド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基又はスルホンアミド基で、 Z_3 が $N-$ で Z_4 が $C(R_8)-$ 、または Z_3

が=C(R₈)-でZ₄が=N-で、R₈がアルキル基、シクロアルキル基、アルケニル基、アリール基、またはヘテロ環基で、X₂がハロゲン原子、アリールオキシ基、ヘテロ環オキシ基、アルキルチオ基、シクロアルキルチオ基、アリールチオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基で、L₁が2価の連結基で表されるカブラーが好ましい。

【0040】一般式(I)で表されるマゼンタカブラーにおいて更に好ましくは、A₁は、一般式(IV)のR₁がアミノ基、アニリノ基、ヘテロ環アミノ基、カルボン 10 アミド基、ウレイド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基、スルホンアミド基、又はスルファモイルアミノ基、R₂がアリール基で表される4当量マゼンタカブラー残基、又は、一般式(V)のR₃がアルキル基、シクロアルキル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環オキシ基で、Z₁が=N-でZ₂が=C(R₄)-、またはZ₁が=C(R₄)-でZ₂が=N-で、R₄がアルキル基、シクロアルキル基、 20 アリール基、またはヘテロ環基で表される4当量マゼンタカブラー残基で、

【0041】B₁は、一般式(VI)のR₅がアミノ基、アニリノ基、ヘテロ環アミノ基、カルボンアミド基、ウレイド基、イミド基、アルコキシカルボニルアミノ基、シクロアルキルオキシカルボニルアミノ基、アリールオキシカルボニルアミノ基、スルホンアミド基、またはスルファモイルアミノ基で、R₆がアリール基で、X₁がアルキルチオ基、アリールチオ基、ヘテロ環チオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基、又は、一般式(VII)のR₇がアルキル基、シクロアルキル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環基で、Z₃が=N-でZ₄が=C(R₈)-、またはZ₃が=C(R₈)-でZ₄が=N-で、R₈がアルキル基、シクロアルキル基、アリール基、またはヘテロ環基で、X₂がハロゲン原子、アリールオキシ基、アルキルチオ基、シクロアルキルチオ基、アリールチオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基で、L₁はアルキレン基、アリールレン基、-O-、-S-、-SO₂-、-C(=O)O-、-C(=O)N(R₉)-、-N(R₉)C(=O)N(R₁₀)-、-SO₂N(R₉)-又は-N(R₉)C(=O)O-で、R₉及びR₁₀は水素原子、アルキル基又はアリール基で表されるカブラーが挙げられる。

【0042】一般式(I)で表される最も好ましいマゼンタカブラーは、A₁は、一般式(V)のR₃がアルキル基、シクロアルキル基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基で、Z₁が=N-でZ₂ 50

が=C(R₄)-で、R₄がアルキル基またはアリール基で表される4当量マゼンタカブラー残基で、

【0043】B₁は、一般式(VI)のR₅がアニリノ基、カルボンアミド基又はウレイド基で、R₆がアリール基で、X₁がアルキルチオ基、アリールチオ基、ヘテロ環チオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基、又は、一般式(VII)のR₇がアルキル基、アルコキシ基、アリールオキシ基で、Z₃が=N-でZ₄が=C(R₈)-で、R₈がアルキル基、アリール基またはヘテロ環基で、X₂がハロゲン原子、アリールオキシ基、アルキルチオ基、アリールチオ基、又は窒素原子で離脱するヘテロ環基で表される2当量マゼンタカブラー残基で、L₁はアルキレン基、アリールレン基、-O-、-S-、-SO₂-、-C(=O)O-、-C(=O)N(R₉)-、-SO₂N(R₉)-又は-N(R₉)C(=O)O-で、R₉及びR₁₀は水素原子、アルキル基又はアリール基で表されるカブラーが挙げられる。

【0044】次に一般式(II)で表されるイエローカブラーの好ましい範囲について説明する。一般式(II)で表されるイエローカブラーは、A₂は、一般式(VIII)のR₁₁がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₂がアリール基又はヘテロ環基で表される4当量イエローカブラー残基、又は一般式(IX)のR₁₃がアルキル基、シクロアルキル基、アリール基またはヘテロ環基でR₁₄が水素原子、アルキル基、シクロアルキル基、アリール基又はヘテロ環基で、nが1で、R₁₅がアリール基又はヘテロ環基で表される4当量イエローカブラー残基で、

【0045】B₂は、一般式(X)のR₁₆がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₇がアリール基又はヘテロ環基で、X₃が窒素原子で離脱するイミド基又はヘテロ環基、アリールオキシ基、アルキルチオ基、アリールチオ基、カルボニルオキシ基、またはカルバモイルオキシ基で表される2当量イエローカブラー残基、又は一般式(XI)のR₁₈がアルキル基、シクロアルキル基、アリール基またはヘテロ環基でR₁₉が水素原子、アルキル基、シクロアルキル基、アリール基又はヘテロ環基で、nが1で、R₂₀がアリール基又はヘテロ環基で、X₄が窒素原子で離脱するイミド基又はヘテロ環基、アリールオキシ基、アルキルチオ基、アリールチオ基、カルボニルオキシ基、またはカルバモイルオキシ基で表される2当量イエローカブラー残基で、L₂が2価の連結基で表されるカブラーが好ましい。

【0046】一般式(II)で表されるイエローカブラーにおいて更に好ましくは、A₂は、一般式(VIII)のR₁₁がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₂がアリール基又はヘテロ環基で表される4当量イエローカブラー残基で、B₂は、一般式

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(X)のR₁₆がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₇がアリール基又はヘテロ環基で、X₃が窒素原子で離脱するイミド基又はヘテロ環基、アリールオキシ基、アルキルチオ基、アリールチオ基、カルボニルオキシ基、またはカルバモイルオキシ基で表される2当量イエローカブラー残基で、L₂がアルキレン基、アリーレン基、-O-、-S-、-SO₂-、-C(=O)O-、-C(=O)N(R₉)-、-N(R₉)C(=O)N(R₁₀)-、-SO₂N(R₉)-又は-N(R₉)C(=O)O-で、R₉及びR₁₀は水素原子、アルキル基又はアリール基で表されるカブラーが挙げられる。

【0047】一般式(II)で表されるイエローカブラーにおいて最も好ましくは、A₂は、一般式(VIII)のR₁₁がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₂がアリール基で表される4当量イエローカブラー残基で、B₂は、一般式(X)のR₁₆がアルキル基、シクロアルキル基、アリール基、又はヘテロ環基で、R₁₇がアリール基で、X₃が窒素原子で離脱するイミド基又はヘテロ環基、アリールオキシ基、アリールチオ基、またはカルバモイルオキシ基で表される2当量イエローカブラー残基で、L₂がアルキレン基、アリーレン基、-O-、-S-、-SO₂-、-C(=O)O-、-C(=O)N(R₉)-、-SO₂N(R₉)-又は-N(R₉)C(=O)O-で、R₉及びR₁₀は水素原子、アルキル基又はアリール基で表されるカブラーが挙げられる。

【0048】次に、一般式(III)で表されるシアンカブラーの好ましい範囲について説明する。一般式(III)で表されるシアンカブラーは、A₃が一般式(XIV)又は一般式(XV)で、B₃が一般式(XVIII)または一般式(XIX)で、L₃が2価の連結基で表されるカブラーが好ましい。

【0049】一般式(III)で表されるより好ましいシアンカブラーは、A₃が一般式(XIV)で表われ、R₂₆が-NH-(M₃)-R₂₉で、M₂及びM₃が-CO-または-SO₂-で、R₂₉がアルキル基、シクロアルキル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、アルキルアミノ基、シクロアルキルアミノ基、アリールアミノ基またはヘテロ環アミノ基で、R₂₇及びR₂₈が水素原子、アルキル基、シクロアルキル基、アリール基またはヘテロ環基で、pが0で表される4当量シアンカブラー残基、または下記一般式(XX)で表わされる4当量シアンカブラー残基で、

【0050】B₃が、一般式(XVIII)のR₃₇が-NH-(M₈)-R₄₀で、M₇及びM₈が-CO-または-SO₂-で、R₄₀がアルキル基、シクロアルキル基、アリール基、ヘテロ環基、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、アルキルアミノ基、シクロ

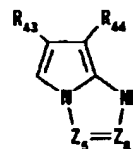
18

アルキルアミノ基、アリールアミノ基またはヘテロ環アミノ基で、R₃₈及びR₃₉が水素原子、アルキル基、シクロアルキル基、アリール基またはヘテロ環基で、X₇がハロゲン原子、アルコキシ基、シクロアルキルオキシ基、アリールオキシ基、ヘテロ環オキシ基、カルバモイルオキシ基、アシルオキシ基、アルキルチオ基、シクロアルキルチオ基、アリールチオ基またはヘテロ環チオ基で表され、pが0で表される2当量シアンカブラー残基、または下記一般式(XXI)で表わされる2当量シアンカブラー残基で、L₃がアルキレン基、アリーレン基、-O-、-S-、-SO₂-、-C(=O)O-、-C(=O)N(R₉)-、-SO₂N(R₉)-又は-N(R₉)C(=O)O-で表されるシアンカブラーが挙げられる。

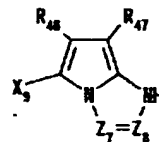
【0051】

【化7】

一般式(XX)



一般式(XXI)



【0052】式中、R₄₃及びR₄₄、R₄₆及びR₄₇はそれぞれに前記のR₃₀及びR₃₁と同じ意味の基を表わし、Z₅、Z₆、Z₇及びZ₈はそれぞれ独立に=N-または=CH(R₄₅)-を表わし、R₄₅はアルキル基、シクロアルキル基、アルケニル基、アリール基またはヘテロ環基を表わす。これらの基の好ましい炭素数及び具体例は前記のR₁で説明したのと同じである。X₉は前記X₁で説明した基と同じ意味の基を表わす。

【0053】一般式(III)で表される最も好ましいシアンカブラーは、A₃が一般式(XIV)で、R₂₆が-NH-(M₃)-R₂₉で、M₂及びM₃が-CO-で、R₂₉がアルキル基、シクロアルキル基、アリール基、アルコキシ基、シクロアルキルオキシ基、アルキルアミノ基、シクロアルキルアミノ基で、R₂₇及びR₂₈が水素原子、アルキル基、シクロアルキル基、アリール基で、pが0で表される4当量シアンカブラー残基、または前記一般式(XX)で、R₄₃及びR₄₄が独立してシアノ基、パーフロアルキル基、アルコキシカルボニル基、シクロアルキルオキシカルボニル基、アリールオキシカルボニル基、

19

カルバモイル基、アルカンシルホニル基、シクロアルカンシルホニル基、アレーンシルホニル基、スルファモイル基またはホスホニル基で、Z₅ が=N-で、Z₆ が=C(R₄₅)-で、R₄₅がアルキル基、シクロアルキル基、アルケニル基、アリール基またはヘテロ環基を表わされる4当量シアンカブラー残基で、

【0054】B₃ が、一般式(XVIII)で、R₃₇が-NH-(M₈)-R₄₀で、M₇及びM₈が-CO-で、R₄₀がアルキル基、シクロアルキル基、アリール基、アルコキシ基、シクロアルキルオキシ基、アルキルアミノ基、シクロアルキルアミノ基、アリールアミノ基で、R₃₈及びR₃₉が水素原子、アルキル基、シクロアルキル基、アリール基で、X₉がハロゲン原子、アルコキシ基、アリールオキシ基、カルバモイルオキシ基、アシルオキシ基で表され、pが0で表される2当量シアンカブラー残、*

M - 1

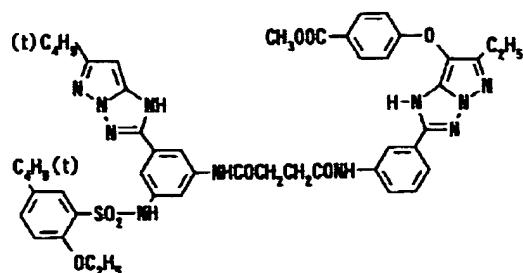
20

* 基、または一般式 (XX1) で、 R_{46} 及び R_{47} がそれぞれ独立にシアノ基、パーフロロアルキル基、アルコキシカルボニル基、シクロアルキルオキシカルボニル基、カルバモイル基、アルカンスルホニル基、シクロアルカンスルホニル基、アレーンスルホニル基、スルファモイル基またはホスホニル基で、 L_3 がアルキレン基、アリーレン基、 $-O-$ 、 $-S-$ 、 $-SO_2-$ 、 $-C(=O)O-$ 、 $-C(=O)N(R_9)-$ 、 $-SO_2N(R_9)-$ 又は $-N(R_9)C(=O)O-$ で表されるシアンカプラーが挙げられる。

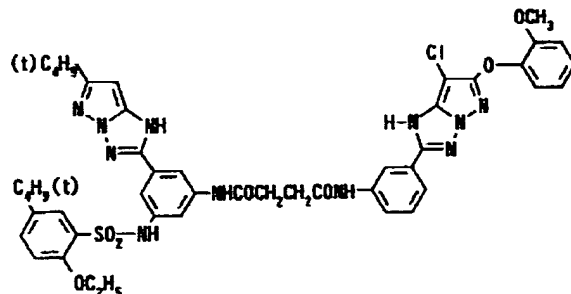
【0055】一般式（I）で表されるマゼンタカプラーの具体例を以下に示すが、本発明はこれらに限定されない。

【0056】

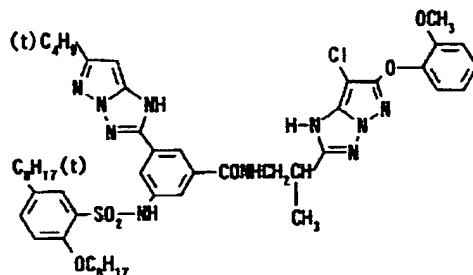
【化8】



M - 2



M - 3

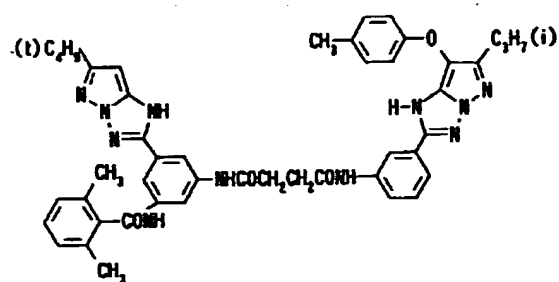


【0057】

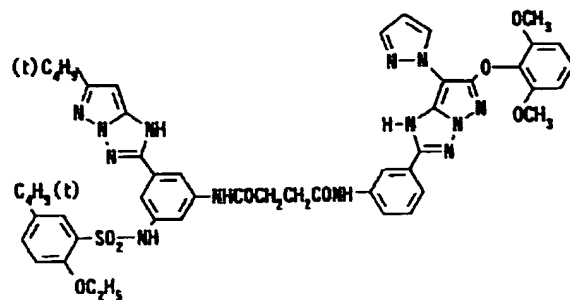
※ ※【化9】

21
M - 4

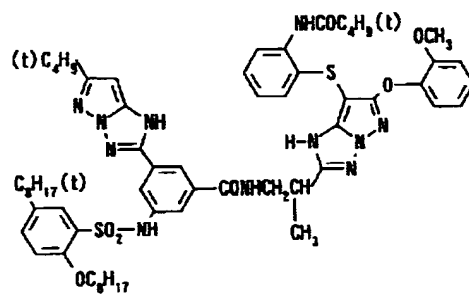
22



M - 5



M - 6

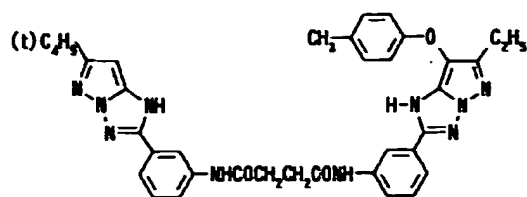


【0058】

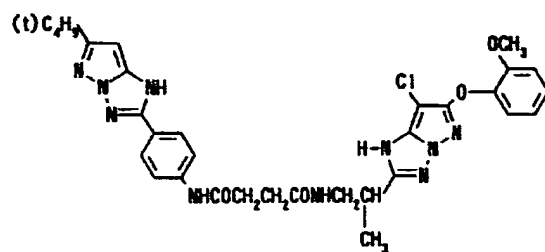
* * 【化10】

23
M - 7

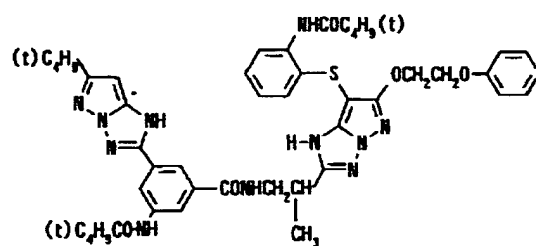
24



M - 8



M - 9

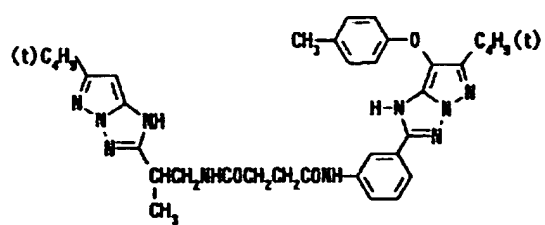


【0059】

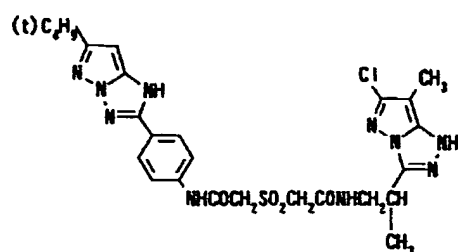
* 30 * 【化11】

25
M - 1 0

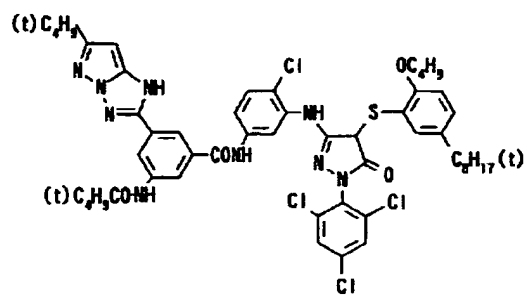
26



M - 1 1



M - 1 2

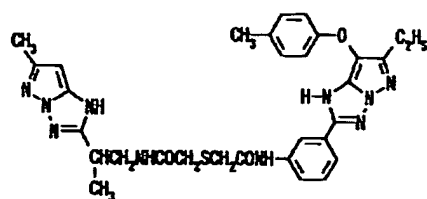


【0060】

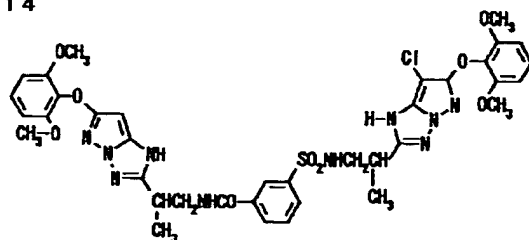
* * 【化12】

27
M-13

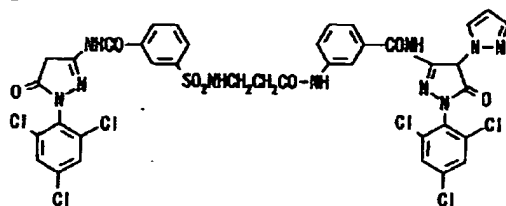
28



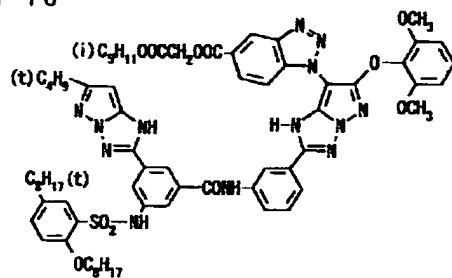
M-14



M-15



M-16

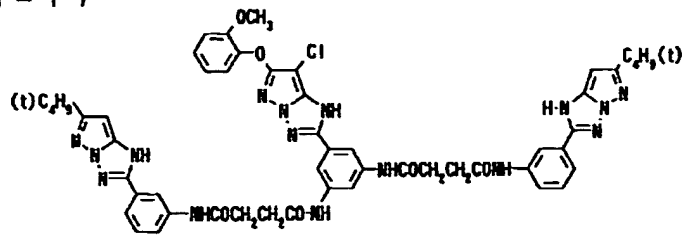


【0061】

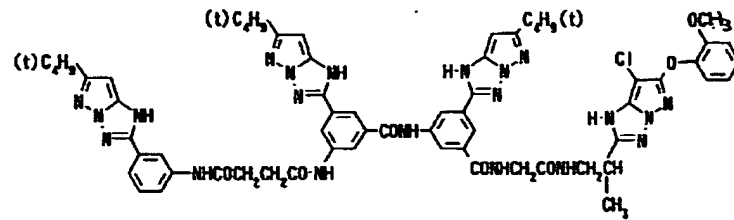
* * 【化13】

29
M - 17

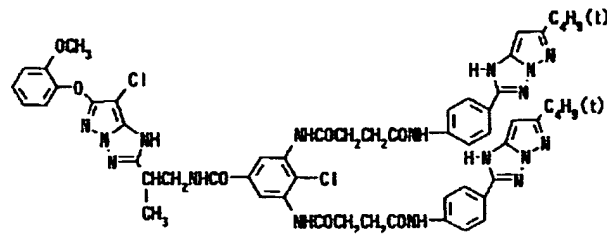
30



M - 18



M - 19



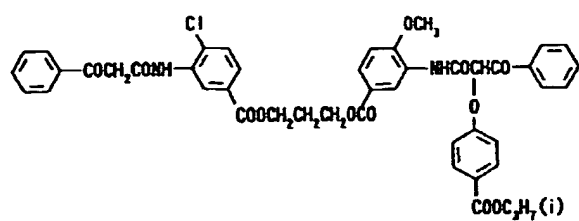
【0062】以下に一般式(II)で表されるイエローカ
 プラーの具体例を示すが、本発明はこれらに限定されな
 い。

*【0063】
 【化14】

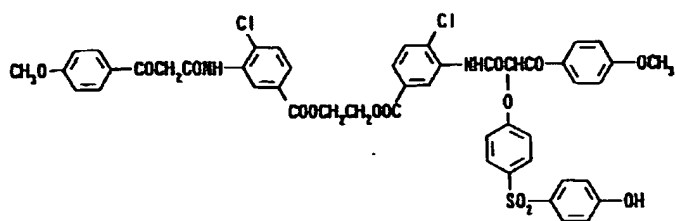
* 30

31
Y - 1

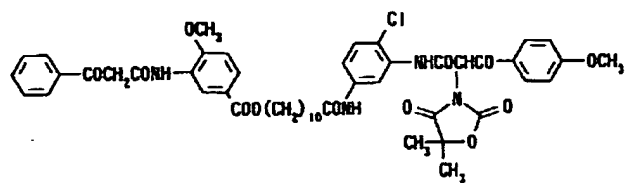
32



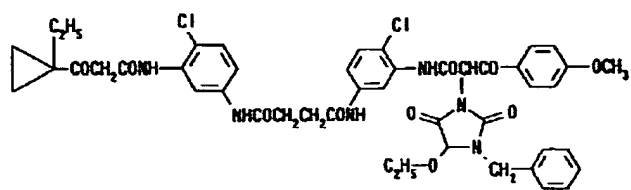
Y - 2



Y - 3



Y - 4

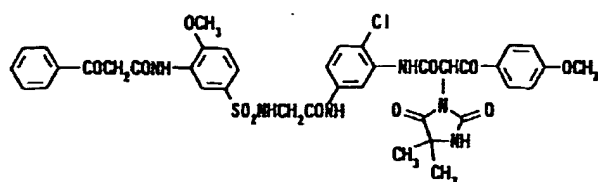


【0064】

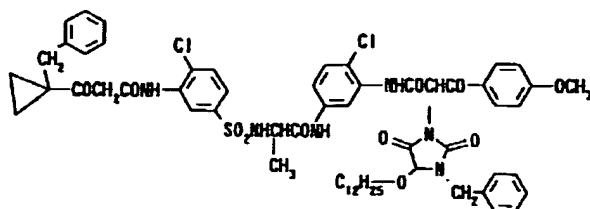
* * 【化15】

33
Y - 5

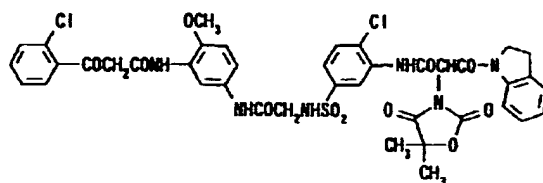
34



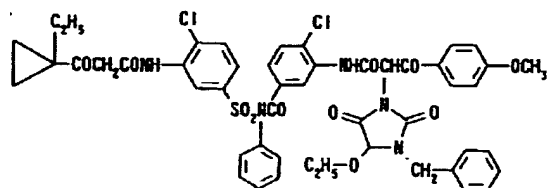
Y - 6



Y - 7



Y - 8

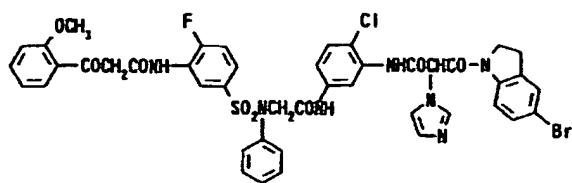


【0065】

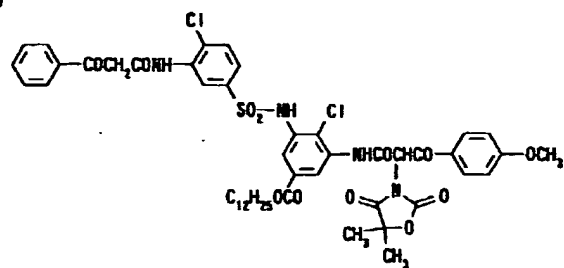
* * 【化16】

35
Y - 9

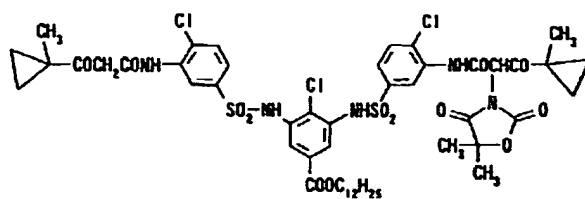
36



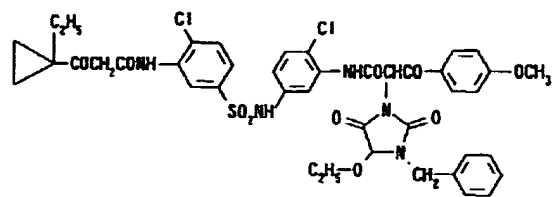
Y - 10



Y - 11



Y - 12

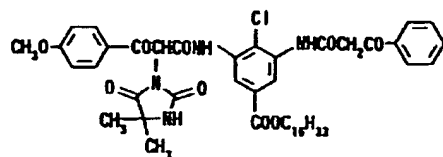


【0066】

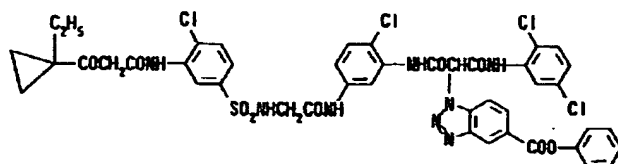
* * 【化17】

37
Y - 1 3

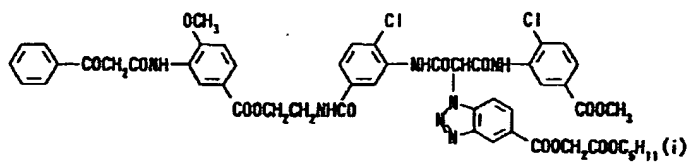
38



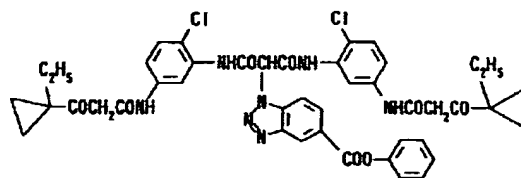
Y - 1 4



Y - 1 5



Y - 1 6



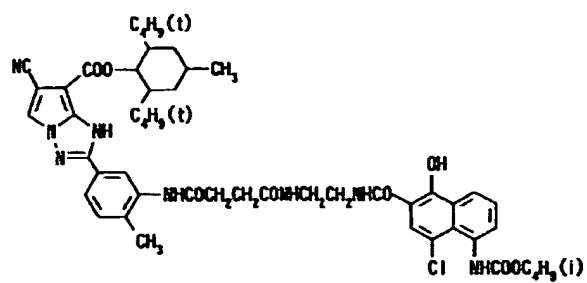
【0067】以下に一般式(III)で表されるシアンカプ
ラーの具体例を示すが本発明はこれらに限定されない。* 【化18】

* 【0068】

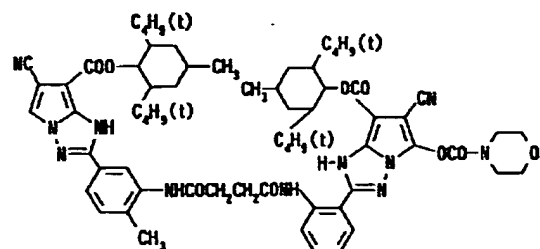
【化18】

39
C - 1

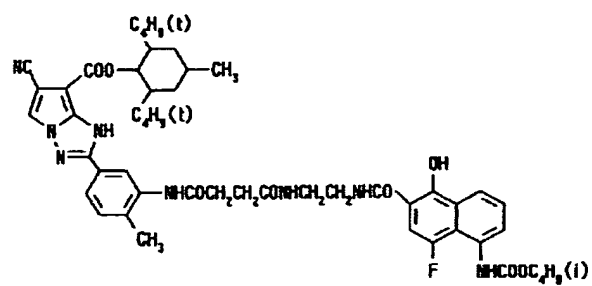
40



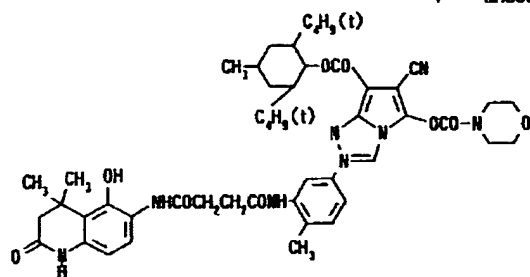
C - 2



C - 3



C - 4

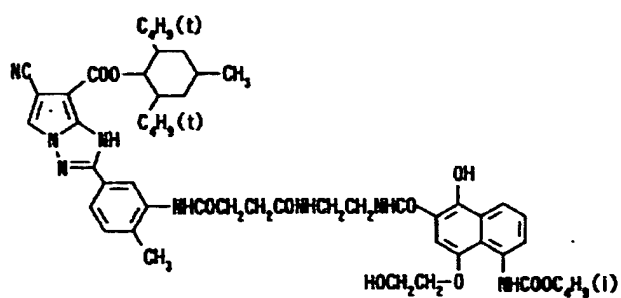


【0069】

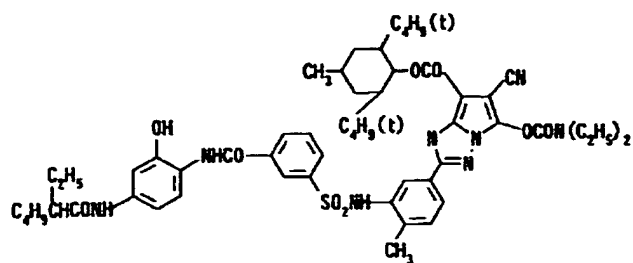
* * 【化19】

41
C - 5

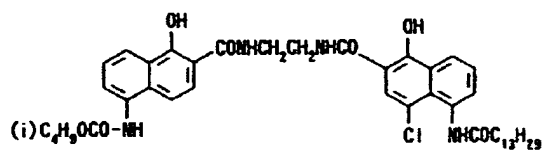
42



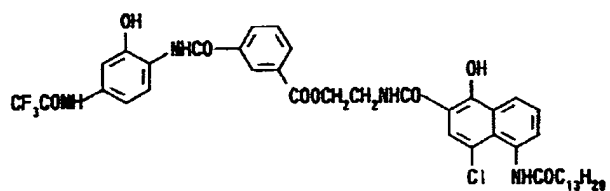
C - 6



C - 7



C - 8

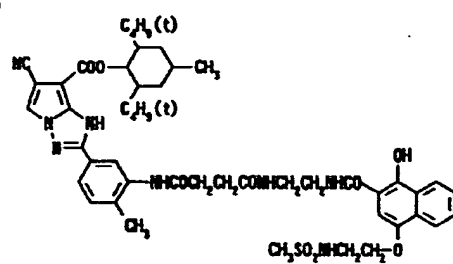


【0070】

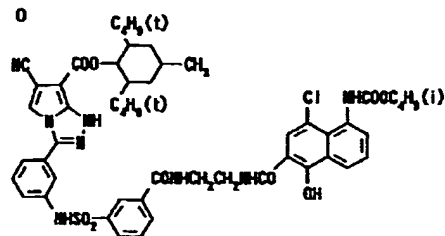
* * 【化20】

43
C - 9

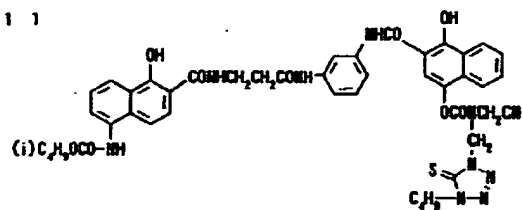
44



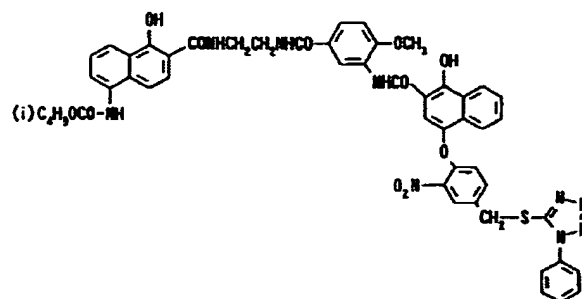
C - 10



C - 11

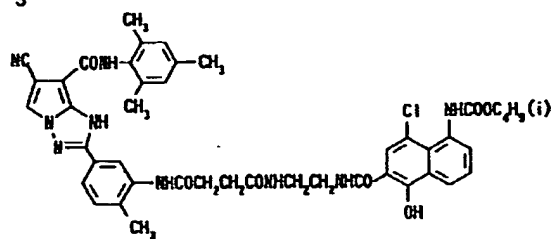


C - 12

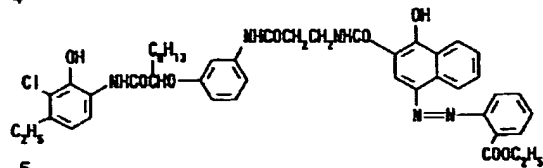


【0071】

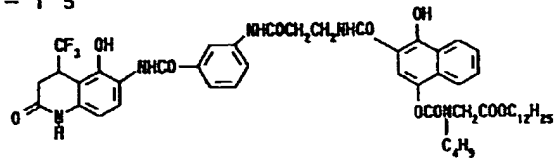
* * 【化21】

45
C - 1 3

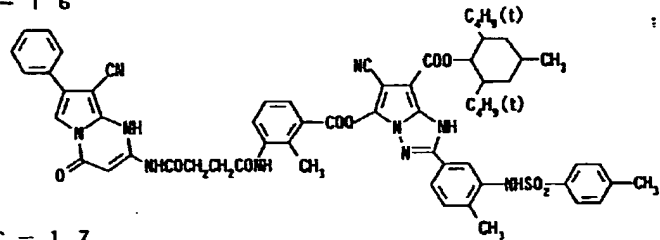
C - 1 4



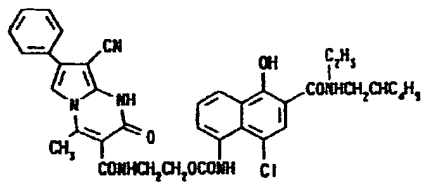
C - 1 5



C - 1 6

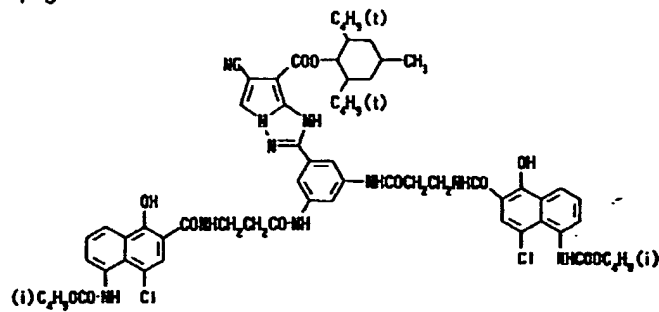


C - 1 7

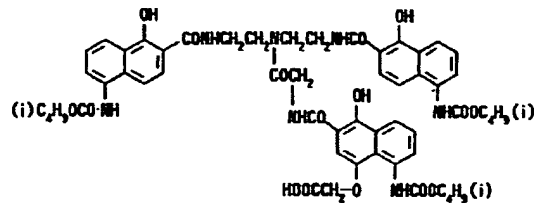


47
C-18

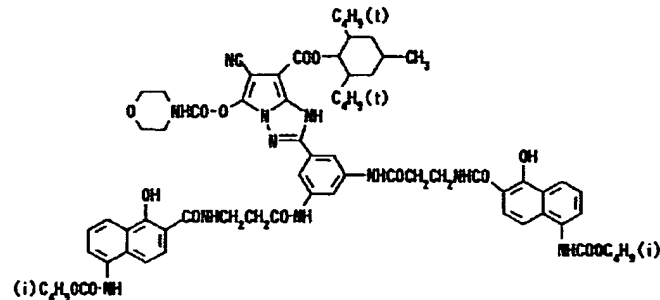
48



C-19



C-20



【0073】次に本発明のカプラーの合成法について記す。一般式(IV)及び一般式(VI)で表わされるマゼンタカプラー残基の合成は、例えば、米国特許第2,311,082号、同第2,343,703号、同第2,600,788号、同第2,908,573号、同第3,062,653号、同第3,152,896号、同第3,936,015号、同第4,310,619号、及び4,351,897号等の明細書に記載されている方法にしたがって合成できる。一般式(V)及び一般式(VI)で表わされるマゼンタカプラー残基の合成は、米国特許第4,540,654号、同第4,705,863号、特開昭61-65245号、同62-209457号、同62-249155号、同63-41851号、特公平7-122744号、特開平5-105682号、同7-13309号、同7-82252号、米国特許第5,451,501号、特公昭47-27411号、米国特許第3,725,067号、特開昭63-101386号、同63-101387号、特開平2-201442号、同2-101077号、同3-125143号、及び米国特許第4,777,121号等の明細書に記載されている方法にしたがって合成できる。

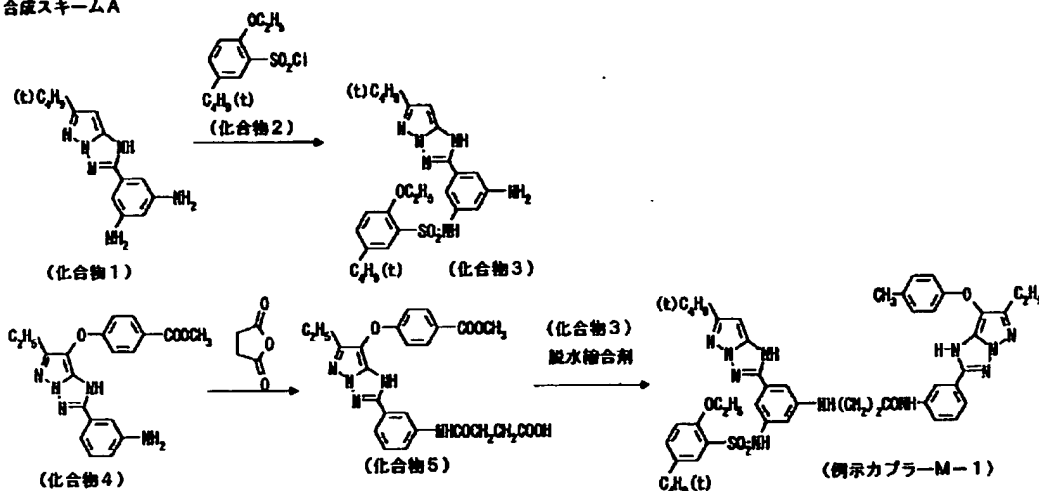
30* 【0074】一般式(VIII)〜一般式(XI)で表わされるイエローカプラー残基の合成は、例えば、米国特許第2,407,210号、同第2,875,057号、同第3,265,506号、同第3,408,194号、同第3,447,928号、同第3,935,501号、同第4,022,620号、特公昭58-10739号、米国特許第4,401,752号、同第4,326,024号、英国特許第1,425,020号、西独特許第2,219,917号、同第2,261,361号、同第2,329,587号及び同第2,433,812号等の明細書に記載された方法にしたがって合成できる。

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【0075】一般式(XII)及び一般式(XVI)で表わされるシアンカプラー残基の合成は、例えば、米国特許第3,772,002号、同第2,772,162号、同第3,758,308号、同第4,126,396号、同第4,334,011号、同第4,327,173号、同第3,446,622号、同第4,333,999号、同第4,427,726号、及び同第4,451,559号等の明細書に記載された方法にしたがって合成できる。一般式(XIII)及び一般式(XVII)で表わされ

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るシアンカブラー残基の合成は、例えば、特公平4-20173号に記載されている方法にしたがって合成できる。一般式(XIV)及び一般式(XVIII)で表わされるシアンカブラー残基の合成は、特公平5-14891号、特開昭63-93754号及び特公平6-43380号等の明細書に記載された方法にしたがって合成できる。一般式(XV)及び一般式(XIX)のシアンカブラー残基の合成は、特開平7-48376号、特開平8-10917*
合成スキームA



* 2号及び欧州特許第714892号、特開平4-204730号、同平4-174429号及び米国特許第5,164,289号等の明細書に記載された方法にしたがって合成できる。

【0076】(例示カブラーM-1)の合成

以下に示す合成スキームAにしたがって合成した。

【0077】

【化23】

【0078】化合物3の合成

ジアミン体27.0g(0.1モル)をアセトニトリル150ml及びジメチルアセトアミド10mlに室温で分散させた。この溶液にピリジン8.1ml(0.01モル)を添加し、次いで5-tert-ブチル-2-エトキシベンゼンスルホニルクロリド2.77g(0.1モル)を少量ずつ添加した。添加終了後、室温で2時間攪拌を行い反応を完結させた。反応終了後、反応液に酢酸エチルを300ml添加し抽出した。この酢酸エチル溶液を水洗し、無水硫酸ナトリウムで乾燥した後、酢酸エチルを減圧下で濃縮、乾固した。残留物にクロロホルム150mlを添加し、結晶を析出させた。この結晶を濾過して乾燥した。化合物3を37.0g(72.5%)得た。

【0079】化合物5の合成

アミノ体(化合物4)39.0g(0.103モル)、無水コハク酸11.4g(1.13モル)にアセトニトリル250mlを加えて加熱攪拌した。5時間加熱攪拌を行った後、室温に冷却した。析出している結晶を濾過して、乾燥した。化合物5を46.5g(94.3%)得た。

【0080】例示カブラーM-1の合成

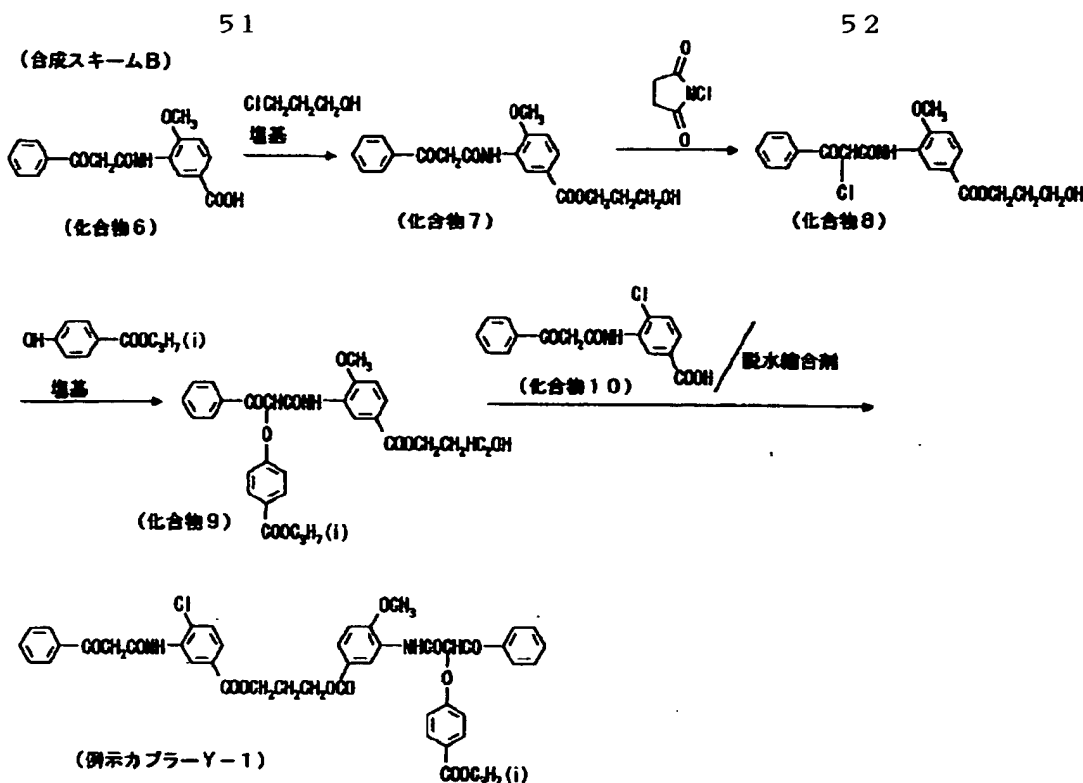
※前記の方法で得たカルボン酸体(化合物5)23.9g(0.05モル)、前記の方法で得たアミン体(化合物3)30.7g(0.6モル)、四塩化炭素14.5mlにジメチルアセトアミド150mlを加えて室温で攪拌した。この溶液にトリフェニルホスフィン13.1gを添加した。この溶液を室温で2時間攪拌した後、トリフェニルホスフィン6.5gを添加し、2時間攪拌をした。次いで更にトリフェニルホスフィン6.5gを追添加して3時間攪拌を行い、反応を完結させた。反応終了後、この反応液に水50ml、炭酸水素ナトリウム10g、酢酸エチル150mlを添加し攪拌した。この酢酸エチル層を分離して、水洗し、無水硫酸マグネシウムで乾燥した。酢酸エチルを減圧下で濃縮、乾固した。残留物をシリカゲルカラムクロマトグラフィー(溶離液:クロロホルム/酢酸エチル=1/1)で分離精製した。酢酸エチル/n-ヘキサンの混合溶媒から結晶を析出させ、濾過して乾燥した。例示カブラーM-1を26.0g(53.6%)得た。

【0081】例示カブラーY-1の合成について記す。Y-1は以下の合成スキームBにしたがって合成した。

【0082】

【化24】

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【0083】化合物7の合成

カルボン酸体(化合物6) 62.7g(0.2モル)、炭酸水素ナトリウム20.2g(0.24モル)とテトラブチルアンモニウムブロマイド1.0gに水30mlとジメチルアセトアミド300mlを添加して、60℃に加熱撹拌した。この溶液に、3-ブロモプロパノール 30.6g(0.22モル)を滴下した。滴下終了後、60℃で12時間加熱撹拌した。反応終了後、酢酸エチル500mlを添加して抽出した。この酢酸エチル溶液を無水硫酸マグネシウムで乾燥した後、減圧下で酢酸エチルを留去した。残留物をシリカゲルカラムクロマトグラフィー(溶離液:クロロホルム/酢酸エチル=2/1)で分離精製した。化合物7を48g(64.6%)得た。

【0084】化合物8の合成

化合物7 30g(0.081モル)を酢酸エチル200mlに溶解させ、室温で撹拌した。この溶液にN-クロロコハク酸イミド10.8g(0.081モル)を数回に分けて添加した。添加終了後、室温で2時間撹拌して反応を完了させた。反応終了後、反応液に水を添加し酢酸エチル層を水洗した。この酢酸エチル溶液を無水硫酸ナトリウムで乾燥した後、減圧下で酢酸エチルを濃縮、乾固し化合物8を得た。

【0085】化合物9の合成

p-ヒドロキシ安息香酸イソプロピルエステル43.2g(0.24モル)、トリエチルアミン33.5mlにジメチルホルムアミド120mlを加えて、40℃に加熱し、撹拌した。この溶液に、前記の方法で得た化合物*50

*8 32.5g(0.08モル)をジメチルホルムアミド50mlに溶解させた溶液を滴下した。滴下終了後、45℃で2時間加熱撹拌した。反応終了後、希塩酸で中和し、酢酸エチル300mlで抽出した。この酢酸エチル溶液を水洗し、無水硫酸ナトリウムで乾燥した後、減圧下で酢酸エチルを濃縮、乾固した。残留物をシリカゲルカラムクロマトグラフィー(n-ヘキサン/酢酸エチル=1/1)で分離精製した。化合物9を26.8g(収率61.0%)得た。

【0086】例示カブラーY-1の合成

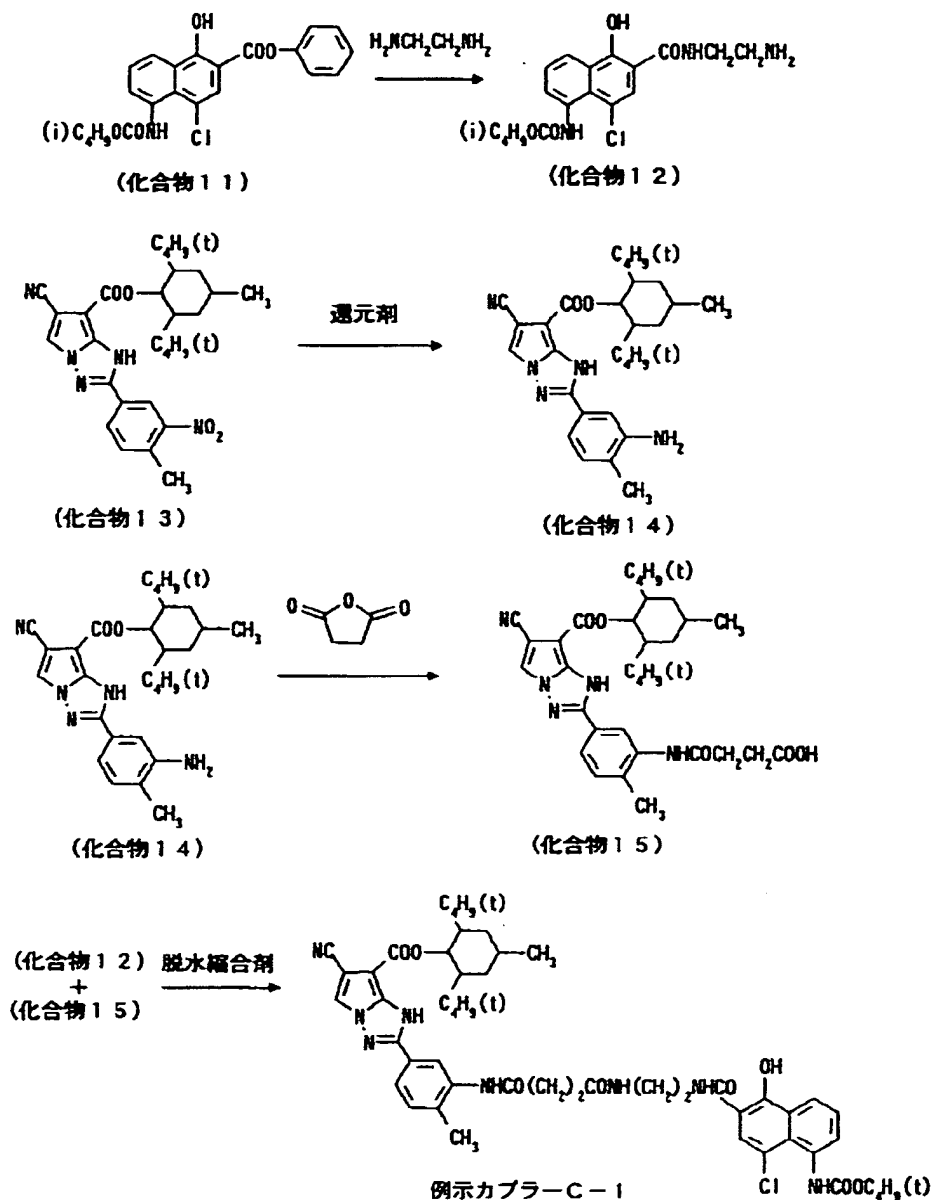
前記の方法で得た化合物9 37.9g(0.069モル)、化合物10 21.9g(0.069モル)、ジメチルアミノピリジン0.5gにジメチルアセトアミド120mlを加えて室温で撹拌した。この溶液にジシクロヘキシルカルボジイミド17.1gをジメチルアセトアミド20mlに溶解させた溶液を滴下した。滴下終了後、室温で24時間撹拌した。反応液を濾過してジシクロヘキシルウレアの結晶を除去した後、濾液に酢酸エチル500mlを添加して抽出した。この酢酸エチル溶液を水洗し、無水硫酸マグネシウムで乾燥した後、減圧下で酢酸エチルを濃縮、乾固した。残留物をシリカゲルカラムクロマトグラフィー(溶離液:n-ヘキサン/酢酸エチル=2/1)で分離精製した。例示カブラーY-1を22.7g(収率38.8%)得た。

【0087】次に例示カブラーC-1の合成について記す。例示カブラーC-1は合成スキームCにしたがって合成した。

【0088】

【化25】

合成スキームC



【0089】化合物12の合成

アロピレンジアミン111g (1.5mol) にアセトニトリル550mlを加えて室温で攪拌した。この溶液に化合物11 57g (0.15mol) を添加した。添加終了後、5時間室温で攪拌を行い、反応液を濃塩酸257ml、水1000mlの溶液の中に攪拌しながら注ぎ結晶を析出させた。この結晶を濾過して、水洗し乾燥した。この結晶を酢酸エチル500mlに室温で分散させ洗浄し、乾燥した。化合物12を55.0g (収率92.6%) 得た。

【0090】化合物14の合成

還元鉄50g、塩化アンモニウム3gに水30mlとイ*50

*ソプロパノール300mlを加えて30分間加熱攪拌した。この溶液に化合物13を51.9g (0.1mol) 数回に分けて添加した。添加終了後、3時間加熱攪拌を行い反応を完結させた。この溶液を熱時濾過して不要な無機物を除去した。濾液に水800mlを添加して結晶を析出させた。この結晶を濾過して、水洗し乾燥した。化合物14を45.7g (収率93.6%) 得た。

【0091】化合物15の合成

化合物14を24.4g (0.05mol)、無水コハク酸を5.5g (mol) にアセトニトリル200mlを加えて加熱攪拌した。5時間加熱攪拌を行った後、室温に冷却した。析出している結晶を濾過して、アセトニトリ

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ルで洗浄し、乾燥した。化合物15を28.0g(収率95.0%)得た。

【0092】例示カプラーC-1の合成

化合物12を19.0g(0.05モル)、化合物15を23.6g(0.04モル)にジメチルホルムアミド100mlを加えて室温で攪拌した。この溶液にジシクロヘキシルカルボジイミド10.7g(0.052モル)をジメチルホルムアミド10mlに溶解した溶液を滴下した。滴下終了後、室温で2時間加熱し、次いで80℃に加熱して2時間攪拌した。反応終了後、反応液を室温まで冷却してから酢酸エチル500mlで抽出した。この酢酸エチル溶液を水洗して乾燥した後、減圧下で酢酸エチルを濃縮乾固した。残留物をシリカゲルカラムクロマトグラフィー(溶離液:クロロホルム/酢酸エチル=3/1)で分離精製した。例示カプラーC-1を19.5g(収率51.3%)得た。前記のイエローカプラー、マゼンタカプラーおよびシアンカプラーの使用量は各々、一般に0.05~10ミリモル/㎡、好ましくは0.1~5ミリモル/㎡である。

【0093】本発明においては、塩基が存在しない場合に安定性が極めて高い発色現像主薬とカプラーを含む感光部材と、塩基及び/または塩基プレカーサーを含む処理部材を用い、少量の水の存在下で加熱現像し、感光部材上に非拡散性色素に基づく画像を形成した場合、粒状やシャープネスに優れた画像が得られ、この画像情報に基づいてカラーペーパーや熱現像カラープリント材料等の別の記録材料上に出力した場合、非常に良好なカラー画像が得られることの発見に基づいている。また、現像まで感光部材と塩基が隔離されているので、撮影用材料に要求される高い保存安定性を満たしつつ、迅速な現像処理が可能である。本発明においては、熱現像によって発色画像を形成後、酸ポリマーを含む処理層を有する第2の処理部材を用い、やはり少量の水の存在下で第2の処理を施すことにより、感光部材の感光層を中和する。この簡易な処理により、空気酸化による発色がほとんど抑えられることが判明した。この中和反応に用いる酸は低分子のものでも良いが、中和後、感光層に多量の塩が残存し、接着など処理後の感光部材の取り扱い性に問題を起こしやすいので、第2処理部材から移動しないポリマーの酸を用いる方が有利である。第2処理部材にはハロゲン化銀溶剤を含ませておき、中和と同時にハロゲン化銀を溶解させても良い。これにより、画像の安定性はさらに高まる。本発明に好ましく用いられる発色現像主薬であるp-スルホンアミドフェノール系化合物から得られる色素は、プロトンが解離した状態及び非解離状態の二つの構造を取りうる。通常は解離状態の色素により発色画像を得る。この時、色素のpKaによっては、第2の処理で中和した場合、非解離状態になってしまう場合がある。これを防止する、すなわち中和した状態でも色素を解離状態に保つには疎水性の高い3級アミン類の

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オイルを共存させることが有効であることが判明した。このようにして安定化された画像を得たのち、その画像情報に基づいて別の材料に出力する方法としては通常の投影露光によっても良いし、透過光の濃度測定によって画像情報を光電的に読み取り、その信号によって出力しても良い。出力する材料は通常の湿式処理によるハロゲン化銀感光材料(カラーペーパー)でも良いが、熱現像感光材料が特に好ましい。また感光材料以外、例えば昇華型感熱記録材料、インクジェット材料、電子写真材料、フルカラー直接感熱記録材料等でも良い。使用後の感光部材は長期保存しても再び画像情報を読み出すことができる。

【0094】以下、各素材、構成、画像形成方法について詳しく説明する。本発明に使用し得るハロゲン化銀は、沃臭化銀、臭化銀、塩臭化銀、沃塩化銀、塩化銀、沃塩臭化銀のいずれでもよい。ハロゲン化銀粒子の大きさは、同体積の球の直径で換算して0.1~2μm、特に0.2~1.5μmが好ましい。本発明に用いるハロゲン化銀粒子の形状は立方体、八面体あるいは14面体のような正常晶よりなる形状を有するもの、六角や矩形の平板状の形状を有するものを使用できるが、この中でもアスペクト比2以上、好ましくは8以上、更に好ましくは20以上の平板状粒子が好ましく、このような平板状粒子で全粒子の投影面積の50%以上、好ましくは80%以上、さらには90%以上を占める乳剤を用いることが好ましい。また、米国特許第5,494,789号、同5,503,970号、同5,503,971号、同5,536,632号等に記載されている粒子厚み0.07μmより薄い、さらに高アスペクト比の粒子も好ましく用いることができる。また、米国特許第4,400,463号、同4,713,323号、同5,217,858号等に記載されている(111)面を主平面として有する高塩化銀平板粒子、及び米国特許第5,264,337号、同5,292,632、同5,310,635号等に記載されている(100)面を主平面とする高塩化銀平板粒子も好ましく用いることができる。

【0095】本発明の乳剤は、通常化学増感および分光増感が施されることが好ましい。化学増感としては、硫黄、セレンあるいはテルル化合物を用いるカルコゲン増感法、金、白金、イリジウム等を用いる貴金属増感法、あるいは、粒子形成中に適度な還元性を有する化合物を用いて、還元性の銀核を導入することで高感度を得る、いわゆる還元増感法を単独にあるいは種々組み合わせ用いることができる。分光増感としては、ハロゲン化銀粒子に吸着して、それ自身の吸収波長域に感度を持たせる、シアニン色素、メロシアニン色素、複合シアニン色素、複合メロシアニン色素、ホロボーラー色素、ヘミシアニン色素、スチリル色素あるいはヘミオキシノール色素等のいわゆる分光増感色素が単独あるいは併用され、

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強色増感剤と共に用いることも好ましい。

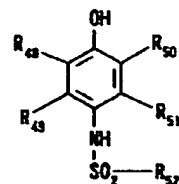
【0096】本発明のハロゲン化銀乳剤には、カブリを防止したり、保存時の安定性を高める目的でアザインデン類、トリアゾール類、テトラゾール類、プリン類等の含窒素複素環化合物類、メルカプトテトラゾール類、メルカプトトリアゾール類、メルカプティミダゾール類、メルカプトチアジアゾール類等のメルカプト化合物類等の種々の安定剤を添加することが好ましい。ハロゲン化銀乳剤用の写真用添加剤は、リサーチ・ディスクロージャー誌N°17643(1978年12月)、同N°18716号(1979年11月)、同N°307105号(1989年11月)、同N°38957号(1996年9月号)に記載されているものを好ましく用いることができる。感光性ハロゲン化銀は、銀換算で0.05~20g/m²、好ましくは0.1~10g/m²用いる。感光部材のバインダーには親水性のものが好ましく、その例としては前項に記載のリサーチ・ディスクロージャーおよび特開昭64-13,546号の71~75ページに記載されているものが挙げられる。その中ではゼラチン及びゼラチンと他の水溶性バインダー、例えばポリビニルアルコール、変成ポリビニルアルコール、セルロース誘導体、アクリルアミド重合体等との組み合わせが好ましい。粒子厚みが薄く高アスペクト比の平板状粒子の形成のためには、特にトリメリット化ゼラチンの使用が好ましい。バインダーの塗布量は一般に1~20g/m²、好ましくは2~15g/m²、更に好ましくは3~12g/m²が適当である。この中でゼラチンとしては一般に50%~100%、好ましくは70%~100%の割合で用いる。

【0097】発色現像主薬は、湿式現像方式においては写真業界では公知のものでp-フェニレンジアミン類、またはp-アミノフェノール類が好ましく、具体例は、T.H.James「The Theory of the Photographic Process」第4版291~314頁、特開平7-287370号、同10-29976号等に記載されている。熱現像方式においては、特開平8-227131号、同8-286340号、欧州公開特許公報0545491A号等に記載されているヒドラジン類、特開平8-234390号、同8-202002号等に記載されているヒドラゾン類が用いられるが、好ましくは前記の一般式(XXI)

【0098】

【化26】

58
一般式(XXII)



【0099】式中、R48~R51は各々水素原子、ハロゲン原子、アルキル基、アリール基、カルボンアミド基、アルカンスルホンアミド基、アレーンスルホンアミド基、アルコキシ基、アリールオキシ基、アルキルチオ基、アリールチオ基、アルキルカルバモイル基、アリールカルバモイル基、カルバモイル基、アルキルスルファモイル基、アリールスルファモイル基、スルファモイル基、シアノ基、アルカンスルホニル基、アレーンスルホニル基、アルコキシカルボニル基、アリールオキシカルボニル基、アルキルカルボニル基、アリールカルボニル基、またはアシルオキシ基を表し、R52は置換又は無置換のアルキル基、アリール基またはヘテロ環基を表す。これらの基の好ましい炭素数及び具体例はR1で説明したのと同じである。

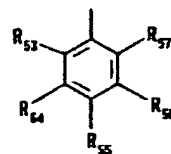
【0100】特にR48~R51はハロゲン原子、アルキル基、カルボンアミド基、アルカンスルホンアミド基、アレーンスルホンアミド基、アルコキシ基、アルキルチオ基、アリールチオ基、カルバモイル基、スルファモイル基、シアノ基、アルカンスルホニル基、アレーンスルホニル基、アシル基、及びアルコキシカルボニル基が好ましい。R48~R51中で、R49およびR51は好ましくは水素原子である。また、R48~R51のハメット定数σ_p値の合計は0.2以上である。上限としては、1.2以下が好ましく、0.8以下がより好ましい。R48~R51で表される基が置換可能な基である場合には、更に置換基を有していてもよく、好ましい置換基の例はR1で説明したのと同じ意味の基である。

【0101】R5はアリール基が好ましく、特に下記一般式(XXIII)で表される置換されたアリール基が好ましい。

【0102】

【化27】

一般式(XXIII)

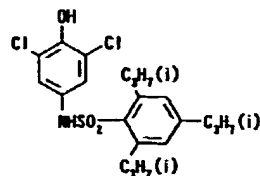


【0103】式中、R53~R58は水素原子、ハロゲン原子、アルキル基、アリール基、カルボンアミド基、アルカンスルホンアミド基、アレーンスルホンアミド基、アルコキシ基、アリールオキシ基、アルキルチオ基、アリ

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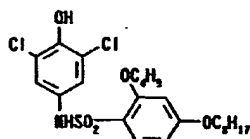
ールチオ基、カルバモイル基、スルファモイル基、シアノ基、アルカンスルホニル基、アレーンスルホニル基、アルコキシカルボニル基、アリールオキシカルボニル基、またはアシル基を表す。R₅₃~R₅₇のうち少なくとも一つは水素原子以外の原子又は基を表す。R₅₃~R₅₇の基の好ましい炭素数及び具体例はR₁の基の説明で挙げたものと同じである。R₅₃及び/またはR₅₇には水素原子以外の置換基を有していることが好ましい。R₅₃とR₅₄、R₅₅とR₅₅、R₅₅とR₅₆またはR₅₆とR₅₇が互いに結合して環を形成してもよい。R₅₃~R₅₇で表され*10

D-1

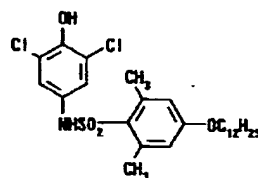


R ₄₈ ~R ₅₁ のσρ値 の合計	R ₄₄ ~R ₅₂ のσρ値 の合計
0.45	-0.45

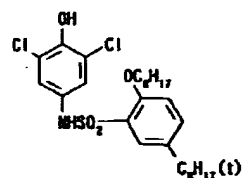
D-2



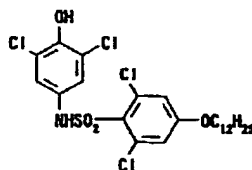
D-3



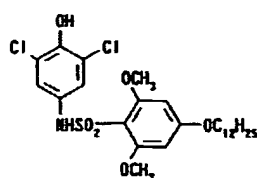
D-4



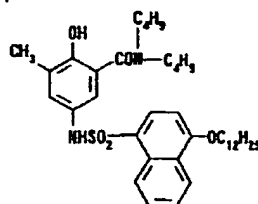
D-5



D-6



D-7



【0106】

※ ※【化29】

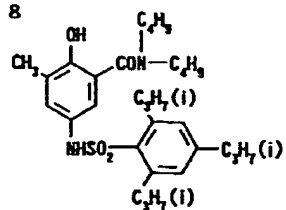
60

*る基が置換可能な基である場合には更に置換基を有していてもよく、好ましい置換基の例はR₁で説明したのと同じ意味の基である。一般式(XII)で表される現像主薬は、特開平9-146248号等のに記載された公知の方法によって合成することができる。

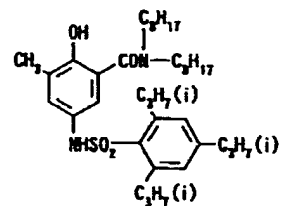
【0104】以下に、熱現像主薬の代表的な具体例を示すが、本発明はこれらによって限定されない。

【0105】

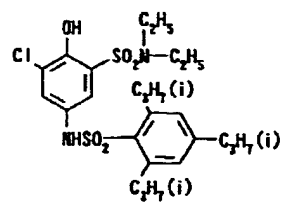
【化28】

61
D - 8

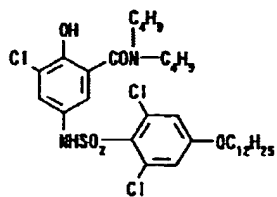
D - 10



D - 12

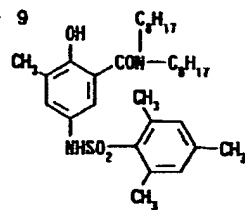


D - 14

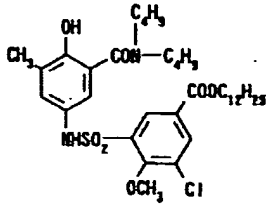


62

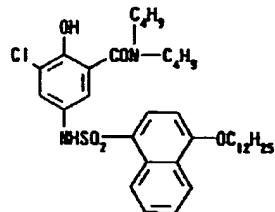
D - 9



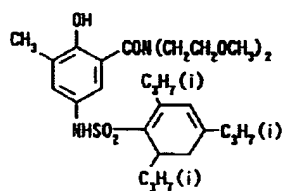
D - 11



D - 13

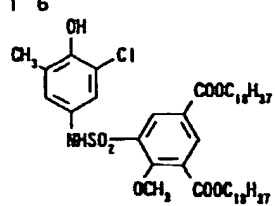


D - 15



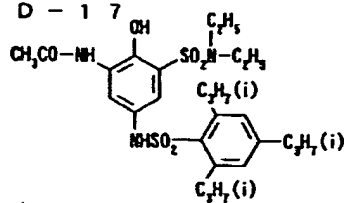
【0107】

* 30 * 【化30】

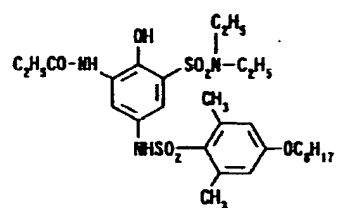
63
D - 16

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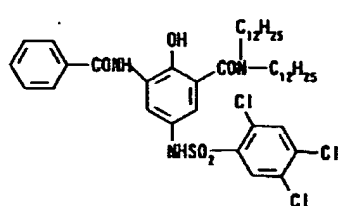
D - 17



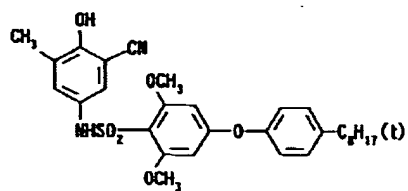
D - 18



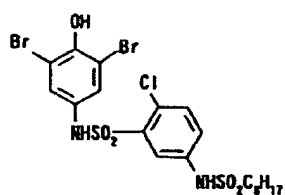
D - 19



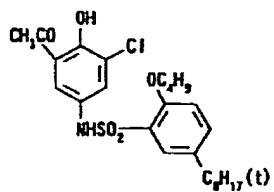
D - 20



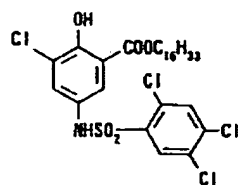
D - 21



D - 22

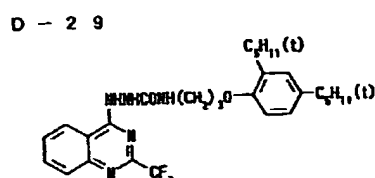
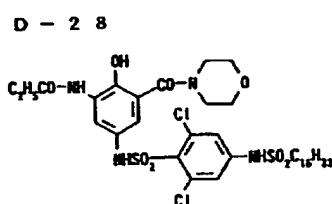
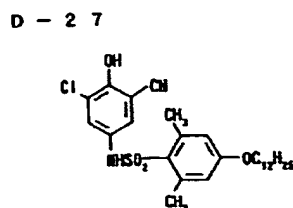
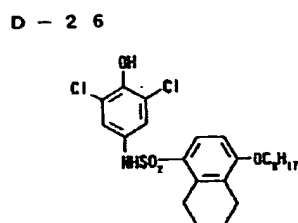
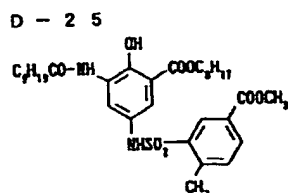
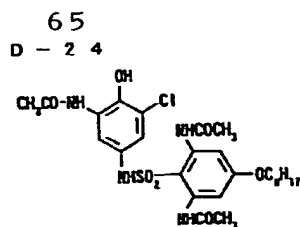


D - 23



【0108】

* * 【化31】



【0109】発色現像主薬は、1種類もしくは複数種類を組み合わせて用いる。各層で別々の現像主薬を用いても良い。それらの現像主薬の総使用量は一般に0.05～20mmol/m²、好ましくは0.1～10mmol/m²である。感光材料には、発色色素の不要な吸収を補正するためのカラードカプラー、現像主薬酸化体と反応して写真的に有用な化合物残査、例えば現像抑制剤を放出する化合物（カプラーを含む）等も用いることができる。発色現像主薬、カプラー等の疎水性添加剤は米国特許第2,322,027号記載の方法などの公知の方法により感光部材の層中に導入することができる。この場合には、米国特許第4,555,470号、同、536,466号、同4,536,467号、同4,587,206号、同4,555,476号、同4,599,296号、特公平3-62,256号などに記載のような高沸点有機溶媒を、必要に応じて沸点50～160℃の低沸点有機溶媒と併用して用いることができる。高沸点有機溶媒の量は用いられる疎水性添加剤1gに対して一般に10g以下、好ましくは5g以下、より好ましくは1g～0.1gである。

【0110】感光材料は、通常3種以上の感色性の異なる感光性層から構成される。各感光性層は少なくとも1層のハロゲン化銀乳剤層を含むが、典型的な例としては、実質的に感色性は同じであるが感光度の異なる複数のハロゲン化銀乳剤層からなる。該感光性層は青色光、緑色光、及び赤色光の何れかに感色性を有する単位感光性層であり、多層ハロゲン化銀カラー写真感光材料においては、一般に単位感光性層の配列が、支持体側から順に赤感色性層、緑感色性層、青感色性層の順に設置される。しかし、目的に応じて上記設置順が逆であっても、*

また、同一感色性層中に異なる感光性層が挟まれたような設置順をもとらうる。本発明のイエローカプラーは青感色性層、マゼンタカプラーは緑感色性層、シアンカプラーは赤感色性層に用いるのが好ましい。感光層の膜厚の合計は一般に1～20μm、好ましくは3～15μmである。

【0111】本発明においては、処理で脱色可能な油性染料を用いた着色層として、イエローフィルター層、マゼンタフィルター層、及びアンチハレーション層が用いられうる。それにより、例えば感光層が支持体に最も近い側から赤色感光層、緑色感光層、青色感光層の順に設けられている場合は、青色感光層と緑色感光層の間にイエローフィルター層、緑色感光層と赤色感光層の間にマゼンタ色フィルター層、赤色感光層と支持体の間にシアン色フィルター層（アンチハレーション層）を設けることができる。これらの着色層は乳剤層に直に接してもよく、またゼラチン等の中間層を介して接するように配置されていても良い。染料の使用量は、それぞれの層の透過濃度が各々青、緑、赤光に対し、一般に0.03～3.0、より好ましくは0.1～1.0になるように用いる。具体的には、色素のε及び分子量にもよるが0.005～2.0ミリモル/m²用いれば良く、より好ましくは0.05～1.0ミリモル/m²である。

【0112】用いられる染料としては特願平8-329124に記載のような酸性核〔例えば環状のケトメチレン化合物（例えば2-ピラゾリン-5-オン、1,2,3,6-テトラヒドロピリジン-2,6-ジオン、ロダニン、ヒダントイン、チオヒダントイン、2,4-オキサゾリジンジオン、イソオキサゾロン、バルビツール酸、チオバルビツール酸、インダンジオン、ジオキソビ

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ラゾロピリジン、ヒドロキシピリジン、ピラゾリジンジ
オン、2, 5-ジヒドロフラン-2-オン、ピロリン-
2-オン) や電子吸引性基によって挟まれたメチレン基
(例えば-CN、-SO₂ R₅₈、-COR₅₈、-COO
R₅₈、CON(R₅₉)₂、-SO₂ N(R₅₉)₂、-C
[=C(CN)₂] R₅₈、-C[=C(CN)₂] N
(R₅₈)₂ (R₅₈はアルキル基、アルケニル基、アリー
ル基、シクロアルキル基、複素環基を表わし、R₅₉は水
素原子またはR₅₈で挙げた基を表わす) によって挟まれ
たメチレン基) を有する化合物から誘導される電子吸引
性の原子団) ; 塩基性核 (例えばピリジン、キノリン、
インドレニン、オキサゾール、イミダゾール、チアゾ
ール、ベンゾオキサゾール、ベンゾイミダゾール、ベンゾ
チアゾール、オキサゾリン、ナフトオキサゾール、ピロ
ールなどから誘導される電子供与性の原子団) ; アリー
ル基 (例えばフェニル基、ナフチル基) 及び複素環基
(例えばピロール、インドール、フラン、チオフエン、
イミダゾール、ピラゾール、インドリジン、キノリン、
カルバゾール、フェノチアジン、フェノキサジン、イン
ドリジン、チアゾール、ピリジン、ピリダジン、チアジ
ジン、ピラン、チオピラン、オキサジアゾール、ベンゾ
キノリン、チアジアゾール、ピロロチアゾール、ピロロ
ピリダジン、テトラゾール、オキサゾール、クマリン、
クロマンなどから誘導される基) のうちの2種がメチ
ン基を介して結合した化合物、或は(NC)₂C=C(C
N)-R₆₀ (R₆₀はアリール基、複素環基) が好まし
い。

【0113】本発明の感光材料は一つの着色層に二つ以
上の染料を混合して用いてもよい。例えば上述のアンチ
ハレーション層にイエロー、マゼンタ、シアンの3種の
染料を混合して用いることもできる。本発明の化合物
は、好ましくは消色性染料をオイルおよび/または油溶
性ポリマーに溶解させた油滴を親水性バインダー中に分
散させた状態で用いる。その調製法としては乳化分散法
が好ましく、例えば米国特許2, 322, 027号記載
の方法によることができる。この場合には米国特許4,
555, 470号、同4, 536, 466号、同4, 5
87, 206号、同4, 555, 476号、同4, 59
9, 296号、特公平3-62, 256号等に記載のよ
うな高沸点オイルを、必要に応じて沸点50℃~160
℃の低沸点有機溶媒と併用して用いることができる。また、
高沸点オイルは2種以上併用することができる。また、
油溶性ポリマーをオイルの代わりに又は、併用して
用いることができるが、その例はPCT国際公開番号W
O88/00723号明細書に記載されている。高沸点
オイルおよび/またはポリマーの量は、用いられる染料
1gに対して一般に0.01g~10g、好ましくは
0.1g~5gを用いる。

【0114】また、染料をポリマーに溶解させる方法と
して、ラテックス分散法によることも可能であり、その

工程、含漬用のラテックスの具体例は、米国特許4, 1
99, 363号、西独特許出願(OLS)2, 541,
274号、同第2, 541, 230号、特公昭53-4
1091号および欧州特許公開第029104号等に記
載されている。油滴を親水性バインダーに分散させる際
には、種々の界面活性剤を用いることができる。例えば
特開昭59-157, 636号の37~38ページ、公
知技術第5号(1991年3月22日、アズテック有限
会社発行)136~138ページに記載の界面活性剤を
用いることができる。また、特開平7-56267号、
同7-228589号、西ドイツ公開特許第932, 2
99A号記載のリン酸エステル型界面活性剤も使用でき
る。親水性バインダーとしては、水溶性ポリマーが好ま
しい。例としてはゼラチン、ゼラチン誘導体の蛋白質、
またはセルロース誘導体、澱粉、アラビアゴム、デキス
トラン、プルラン等の多糖類のような天然化合物とポリ
ビニルアルコール、ポリビニルピロリドン、アクリルア
ミド重合体等の合成高分子化合物が挙げられる。これら
水溶性ポリマーは2種以上組み合わせて用いることもで
きる。特にゼラチンとの組み合わせが好ましい。ゼラチ
ンは、種々の目的に応じて石灰処理ゼラチン、酸処理ゼ
ラチン、カルシウム等の含有量を減らしたいわゆる脱灰
ゼラチンから選択すれば良く、組み合わせて用いること
もできる。

【0115】染料は、消色剤の存在下にて処理時に消色
する。消色剤としては、アルコールもしくはフェノール
類、アミンもしくはアニリン類、スルフィン酸類もしくは
その塩、亜硫酸もしくはその塩、チオ硫酸もしくはその
塩、カルボン酸類もしくはその塩、ヒドラジン類、グ
アニジン類、アミノグアニジン類、アミジン類、チオール
類、環状または鎖状の活性メチレン化合物、環状または
鎖状の活性メチン化合物、およびこれら化合物から生
じるアニオン種等が挙げられる。これらのうちで好まし
く用いられるものはヒドロキシアミン類、スルフィン酸
類、亜硫酸、グアニジン類、アミノグアニジン類、ヘテ
ロ環チオール類、環状または鎖状の活性メチレン、活性
メチン化合物類であり、特に好ましいのはグアニジン
類、アミノグアニジン類である。上述の消色剤は処理時
に染料と接触し、染料分子に求核付加することにより、
染料を消色させると考えられる。好ましくは染料を含有
するハロゲン化銀感光材料を像様露光後または像様露光
と同時に消色剤または消色剤プレカーサーを含有する処
理部材と水の存在下で膜面同士を重ね合わせて加熱し、
その後両者を剥離することにより、該ハロゲン化銀感光
材料上に発色画像を得ると共に染料を消色させる。この
場合、消色後の染料の濃度は、元の濃度の1/3以下、
好ましくは1/5以下である。消色剤の使用量は、染料
の0.1倍から200倍モル、好ましくは0.5倍から
100倍モルである。

【0116】ハロゲン化銀及び発色現像主薬、カプラー

は同一感光層に含まれていても別層でも良い。また、感光層以外にも保護層、下塗り層、中間層、及び上述した黄色フィルター層、アンチハレーション層等非感光性層を設けても良く、支持体の裏側にはバック層があっても良い。感光層側の全塗布膜の膜厚は一般に $3\sim 25\mu\text{m}$ 、好ましくは $5\sim 20\mu\text{m}$ である。

【0117】感光材料には、種々の目的で硬膜剤、界面活性剤、写真安定剤、帯電防止剤、滑り剤、マット剤、ラテックス、ホルマリンスカベンジャー、染料、UV吸収剤等を用いることができる。これらの具体例は、前記のリサーチ・ディスクロージャー及び特開平9-204031号等に記載されている。なお、特に好ましい帯電防止剤の例は ZnO 、 TiO_2 、 SnO_2 、 Al_2O_3 、 In_2O_3 、 SiO_2 、 MgO 、 BaO 、 MoO_3 、 V_2O_5 等の金属酸化物微粒子である。

【0118】感光材料の支持体としては、日本写真学会編「写真工学の基礎—銀塩写真編」(株)コロナ社刊(昭和54年)223~240ページ記載の写真用支持体が好ましい。具体的にはポリエチレンテレフタレート、ポリエチレンナフタレート、ポリカーボネート、シンジオタクティックポリスチレン、セルロース類(例えばトリアセチルセルロース)等が挙げられる。この中で、特にポリエチレンナフタレートを主成分とするポリエステルが好ましいが、ここで言う「ポリエチレンナフタレートを主成分とする」ポリエステルとは、全ジカルボン酸残基中に含まれるナフタレンジカルボン酸の含率が $50\text{mol}\%$ 以上であることが好ましい。より好ましくは、 $60\text{mol}\%$ 以上、さらに好ましくは、 $70\text{mol}\%$ 以上である。これは、共重合体であってもよく、ポリマーブレンドであってもよい。共重合の場合、ナフタレンジカルボン酸ユニットとエチレングリコールユニット以外に、テレフタル酸、ビスフェノールA、シクロヘキサジメタノール等のユニットを共重合させたものも好ましい。これらの中で力学強度、コストの観点から最も好ましいのがテレフタル酸ユニットを共重合したものである。ポリマーブレンドの好ましい相手は、相溶性の観点からポリエチレンテレフタレート(PET)、ポリアクリレート(PAr)、ポリカーボネート(PC)、ポリシクロヘキサジメタノールテレフタレート(PC-T)等のポリエステルを挙げることができるが、中でも力学強度、コストの観点から好ましいのがPETとのポリマーブレンドである。

【0119】以下に好ましいポリエステルの具体的化合物例を示す。

ポリエステル コポリマー例(括弧内の数字はモル比を示す)

2, 6-ナフタレンジカルボン酸/テレフタル酸/エチレングリコール(70/30/100) $T_g=98^\circ\text{C}$

2, 6-ナフタレンジカルボン酸/テレフタル酸/エチレングリコール(80/20/100) $T_g=105^\circ\text{C}$

ポリエステル ポリマーブレンド例(括弧内の数字は重量比を示す)

PEN/PET(60/40) $T_g=95^\circ\text{C}$

PEN/PET(80/20) $T_g=104^\circ\text{C}$

これらの支持体は光学的特性、物理的特性を改良するために、熱処理(結晶化度や配向制御)、一軸及び二軸延伸(配向制御)、各種ポリマーのブレンド、表面処理等を行うことができる。また、支持体として、例えば、特開平4-124645号、同5-40321号、同6-35092号、同6-31875号記載の磁気記録層を有する支持体を用い、撮影情報等を記録することが好ましい。感光材料の支持体の裏面には、特開平8-292514号に記載されているような耐水性のポリマーを塗布することも好ましい。上記の磁気記録層を有する感材に特に好ましく用いられるポリエステル支持体については公開技報94-6023(発明協会;1994.3.15)に詳細に記載されている。支持体の厚みは一般に $5\sim 200\mu\text{m}$ 、好ましくは $40\sim 120\mu\text{m}$ である。本発明では撮影済みの感光部材を現像するのに支持体上に少なくとも塩基及び/または塩基プレカーサーを含む処理層を有する第1処理部材を用いる。塩基としては、無機あるいは有機塩基を用いることができる。無機の塩基としては、特開昭62-209448号記載のアルカリ金属またはアルカリ土類金属の水酸化物、リン酸塩、炭酸塩、ホウ酸塩、有機酸塩、特開昭63-25208号記載のアルカリ金属またはアルカリ土類金属のアセチリド、等が挙げられる。

【0120】また有機の塩基としては、アンモニア、脂肪族あるいは芳香族アミン類(例えば、1級アミン類、2級アミン類、3級アミン類、ホリアミン類、ヒドロキシルアミン類、複素環状アミン類)、アミジン類、ビスあるいはトリスあるいはテトラアミジン、グアニジン類、水不溶性のモノあるいはビスあるいはトリスあるいはテトラグアニジン類、4級アンモニウム水酸化物類などが挙げられる。

【0121】塩基プレカーサーとしては、脱炭酸型、分解型、反応型および錯塩形成型などを用いることができる。これらの本発明に好ましく用いることのできる塩基、及び塩基プレカーサーの例は公知技術第5号(1991年3月22日発行、アズテック有限会社)55~88ページに記載されている。本発明において最も好ましく用いることのできる塩基発生法は、EP210、660号、米国特許第4,740,445号に記載されている水に難溶な塩基性金属化合物及び、この塩基性金属化合物を構成する金属イオンと水を媒体として錯形成反応しうる化合物の組み合わせで塩基を発生させる方式である。この場合、水に難溶な塩基性化合物は感光部材に、錯形成化合物は第1処理部材に添加することが好ましいが、逆も可能である。好ましい化合物の組み合わせとしては、水酸化亜鉛の微粒子を感光部材に、ピコリン酸の

塩、例えばヒコリン酸グアニジン第1処理部材に用いる系である。第1処理部材には媒染剤を用いても良く、この場合、ポリマー媒染剤が好ましい。また、それ以外にもバインダーとして感光部材の項で述べたような、ゼラチンなどの水溶性ポリマーを用いることが好ましい。第1処理部材には処理層以外にも保護層、下塗り層、バック層その他の補助層があっても良い。これらの各層は硬膜剤で硬膜されていることが必要である。用いる硬膜剤は感光部材と同様である。第1処理部材は連続ウェブに処理層がもうけられ、送り出しロールから供給され処理に使用された後も裁断されることなく別のロールに巻き取られる形態が好ましい。その例は特開平9-127, 670号に記載されている。第1処理部材の支持体は限定がなく、感光部材で述べたようなプラスチックフィルム、または紙が用いられる。厚みは一般に $4\mu\text{m}$ ～ $120\mu\text{m}$ 、好ましくは $6\sim 70\mu\text{m}$ である。特開平9-222690号に記載されているような、アルミニウムを蒸着したフィルムも好ましく用いることができる。

【0122】第2処理部材は少なくとも酸ポリマーを含む処理層を有する。酸ポリマーの例としては米国特許3,362,819号に記載されているようなアクリル酸、メタクリル酸、もしくはマレイン酸の重合体とその部分エステルまたは酸無水物、仏国特許2,290,699号に記載されているようなアクリル酸とアクリル酸エステルの共重合体、米国特許4,139,383号やリサーチ・ディスクロージャーNo. 16102(1977)に開示されているようなラテックス型の酸性ポリマーなどを挙げることができる。これらの酸ポリマーは一部が中和されていても良い。酸ポリマーの量は酸の量として、発生する塩基量の0.9から2.0倍が好ましい。実際には第2処理後の感光部材の膜面pHが一般に5～8、好ましくは6～7になるよう調節するのが好ましい。第2処理部材の処理層には酸ポリマー以外にバインダーとして他の水溶性ポリマーを含むことが好ましい。その例は感光部材及び第1処理部材同様である。第2処理部材には更にハロゲン化銀溶剤が含まれていることが好ましい。ハロゲン化銀溶剤としては、公知のものを使用できる。例えば、チオ硫酸塩、亜硫酸塩、チオシアン酸塩、特公昭47-11386記載のチオエーテル化合物、特開平8-179458号記載のウラシル、ヒダントインの如き5ないし6員環のイミド基を有する化合物、特開昭53-144319記載の炭素-硫黄の2重結合を有する化合物、アナリティカ・ケミカ・アクタ (Analytica Chimica Acta) 248巻604～614頁(1991年)記載のトリメチルトリアゾリウムチオレート等のメソイオンチオレート化合物が好ましく用いられる。また、特開平8-69097号記載のハロゲン化銀を定着して安定化しうる化合物もハロゲン化銀溶剤として使用しうる。最も好ましいのは上記のメソイオンチオレート化合物である。ハロゲン化銀溶剤は、単独で使用しても

よいし、複数のハロゲン化銀溶剤を併用することも好ましい。

【0123】処理層中の、全ハロゲン化銀溶剤の含有量は、一般に $0.01\sim 100\text{mmol}/\text{m}^2$ であり、好ましくは、 $0.1\sim 50\text{mmol}/\text{m}^2$ である。感光部材の塗布銀量に対して、モル比で一般に $1/20\sim 20$ 倍、好ましくは $1/10\sim 10$ 倍、より好ましくは $1/4\sim 4$ 倍である。ハロゲン化銀溶剤は、水、メタノール、エタノール、アセトン、ジメチルホルムアミド、メチルプロピレングリコール等の溶媒あるいは酸性水溶液として添加してもよいし、固体微粒子分散させて塗布液に添加してもよい。第2処理部材は処理層以外に保護層、下塗り層、バック層その他の補助層があっても良い。これらの各層は硬膜剤で硬膜されていることが必要である。用いる硬膜剤は感光部材と同様である。第2処理部材に好ましく用いられる支持体は第1処理部材同様である。第2処理部材も第1処理部材同様、連続ウェブに処理層が設けられ、送り出しロールから供給され処理に使用された後も裁断されることなく別のロールに巻き取られる形態が好ましい。

【0124】本発明の実際の画像形成例としては、感光部材を通常の135カメラ、APSカメラ、またはレンズ付きフィルムで使用可能なように加工し、カートリッジに詰める。カメラで撮影した感光部材をカートリッジから引き出し、まず第1処理部材を用い、感光層と処理層の間に水を存在させる条件下で加熱現像する。水の量は少なすぎると現像が十分進まない。また多すぎると水が膜面からあふれたり、剥離後の乾燥に時間がかかるなどの弊害を生じる。水量は、感光部材及び第1処理部材双方のバック層を除く全塗布膜を最大膨潤させるに要する量の0.1から1倍に相当する量が好ましく、具体的には $1\text{cc}/\text{m}^2\sim 50\text{cc}/\text{m}^2$ が好ましい。この量の水の存在下で、感光材料と処理材料を感光層と処理層が向かい合う形で重ね合わせ、 60°C から 100°C の温度で5秒から60秒間加熱する。水の付与方法としては感光材料または処理材料を水に浸漬し、スクウィーズローラーで余分な水を除去する方法がある。また、特開平10-26817号に記載されているような、水を噴射する複数のノズル孔が一定の間隔で感光材料または処理材料の搬送方向と交差する方向に沿って直線状に並べられたノズルと前記ノズルを搬送経路上の感光材料または処理材料に向かって変位させるアクチュエータとを有する水塗布装置により水を噴射する方法も好ましい。また、スポンジ等で水塗布する方法も好ましい。加熱方法としては、加熱されたブロックやプレートに接触させたり、熱ローラー、熱ドラム、赤外及び遠赤外線ランプ等を用いても良い。第1処理後、感光部材を第1処理部材から剥離し、ついで第2処理部材を用い、同様に第2処理を行う。水の量は $1\text{cc}/\text{m}^2\sim 50\text{cc}/\text{m}^2$ 、加熱は $40^\circ\text{C}\sim 100^\circ\text{C}$ で2秒～60秒で行うのが好ましい。第2処理後、感光部材を第2処理部材から剥離し、乾燥すること

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により、感光部材上に安定化された画像を得る。なお、乾燥前に感光部材を水洗することも可能である。

【0125】

【実施例】以下、実施例によって本発明の効果を詳しく説明する。

実施例1

<感光性ハロゲン化銀乳剤の調製方法>青色感光性ハロゲン化銀乳剤(1)の調製法を以下に示す。平均分子量12000のゼラチン0.96gおよび臭化カリウム0.9gを含む蒸留水1191mlを反応容器中に入れ、40℃に昇温した。この溶液に強く攪拌しながら硝酸ナトリウム銀0.5gを含む水溶液(A)10.5mlと臭化カリウム0.35gを含む水溶液(B)10mlとを150秒間で添加した。添加終了後30秒後に臭化カリウム10%水溶液を12mlを添加し、30秒後に、反応溶液の温度を75℃に上昇させた。石灰処理ゼラチン35.0gを蒸留水250mlと共に加えた後、硝酸銀10.0gを含む水溶液(C)39mlと臭化カリウム6.7gを含む水溶液(D)30mlとを添加流量を加速しながら3分15秒間にわたって添加した。次いで硝酸銀96.7gを含む水溶液(E)302mlと沃化カリウムを臭化カリウムとのモル比7:93で含む水溶液(F)(臭化カリウムの濃度26%)とを添加流量を加速しながら、かつ反応液の銀電位が飽和カロメル電極に対して-20mVとなるように20分間で添加した。さらに硝酸銀24.1gを含む水溶液(G)97mlと臭化カリウムの21.9%水溶液(H)と3分間にわたって、かつ反応液の銀電位が飽和カロメル電極に対*

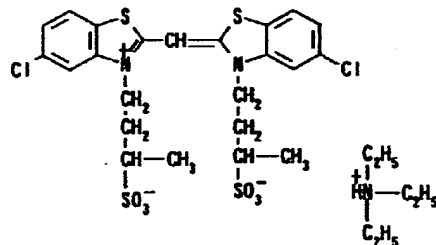
増感色素(12)

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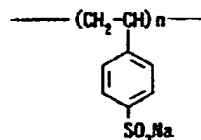
*して25mVとなるように添加した。添加終了後1分間75℃に保った後、反応液の温度を55℃に下降させた。次いで、1規定の水酸化ナトリウム15mlを添加した。その後2分後、硝酸銀5gを含む水溶液(I)100mlと沃化カリウム4.7gを含む水溶液(J)200.5mlとを5分間にわたって添加した。添加終了後臭化カリウム7.11gを加え、55℃で1分間保った後、さらに硝酸銀62gを含む水溶液(K)248mlと臭化カリウム48.1gを含む水溶液(L)231mlとを8分間にわたって添加した。その30秒後に、エチルチオスルホン酸ナトリウム0.03gを含む水溶液を添加した。温度を下げ、花王製デモールを用いて、乳剤粒子を凝集沈降せしめて脱塩を行った。分散は、ベンゼンチオスルホン酸ナトリウムと、フェノキシエタノールと水溶性ポリマー(10)と石灰処理ゼラチンを添加して行った。化学増感は、60℃にて行った。増感色素(12)をゼラチン分散物として、化学増感前に添加した後に、チオシアン酸カリウムと塩化金酸の混合液を添加し、次いで、チオ硫酸ナトリウム、セレン増感剤を添加し、化学増感の停止は、メルカプト化合物で行った。増感色素、化学増感剤、メルカプト化合物の量は、感度、カブリで最適化した。得られた粒子は平板粒子が全粒子の全投影面積の99%を超える割合を占め、平均球相当直径は1.07 μ mで、平均厚み0.38 μ m等価円直径1.47 μ m、アスペクト比3.9であった。

【0126】

【化32】



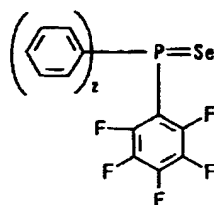
水溶性ポリマー(10)



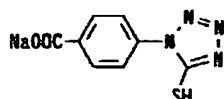
【0127】

【化33】

セレン増感剤



メルカプト化合物



【0128】青色感光性ハロゲン化銀乳剤(2)の調製法を以下に示す。平均分子量12000のゼラチン0.96gおよび臭化カリウム0.9gを含む蒸留水1191mlを反応容器に入れ、40℃に昇温した。この溶液に強く攪拌しながら硝酸銀1.5gを含む水溶液

(A) 37.5mlと臭化カリウム1.051gを含む水溶液(B) 37.5mlとを90秒間で添加した。添加終了後30秒後に臭化カリウム10%水溶液を12mlを添加し、30秒後に、反応溶液の温度を75℃に上昇させた。石灰処理ゼラチン35.0gを蒸留水250mlと共に加えた後、硝酸銀29.0gを含む水溶液(C) 116mlと臭化カリウム20gを含む水溶液(D) 91mlとを添加流量を加速しながら11分35秒間にわたって添加した。次いで硝酸銀96.7gを含む水溶液(E) 302mlと沃化カリウムを臭化カリウムとのモル比3.3 : 96.7で含む水溶液(F) (臭化カリウムの濃度26%)とを添加流量を加速しながら、かつ反応液の銀電位が飽和カロメル電極に対して2mVとなるように20分間で添加した。さらに硝酸銀24.1gを含む水溶液(G) 97mlと臭化カリウムの21.9%水溶液(H)とを3分間にわたって、かつ反応液の銀電位が飽和カロメル電極に対して0mVとなるように添加した。添加終了後1分間75℃に保った後、反応液の温度を55℃に下降させた。次いで、1規定の水酸化ナトリウム15mlを添加した。その後2分後、硝酸銀10.4gを含む水溶液(I) 153mlと沃化カリウム9.35gを含む水溶液(J) 414.5mlとを5分間にわたって添加した。添加終了後臭化カリウム7.11gを加え、55℃で1分間保った後、さらに硝酸銀57.1gを含む水溶液(K) 228mlと臭化カリウム43.9gを含む水溶液(L) 201mlとを8分間にわたって添加した。その30秒後に、エチルチオスルホン酸ナトリウム0.04gを含む水溶液を添加した。温度を下げ、青色感光性ハロゲン化銀乳剤(1)と同様にして、脱塩分散を行った。化学増感は、青色感光性ハロゲン化銀乳剤(1)とセレン増感を添加しない以外は、同

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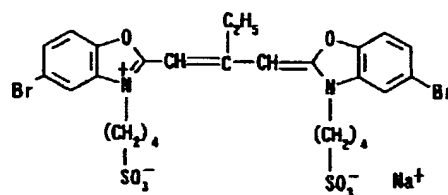
様に行った。増感色素、化学増感停止のメルカプト化合物は、乳剤粒子の表面積に概ね比例した。得られた粒子は平板粒子が全粒子の全投影面積の99%を超える割合を占め、平均球相当直径は0.66μmで、平均厚み0.17μm等価円直径1.05μm、アスペクト比6.3であった。

【0129】青色感光性ハロゲン化銀乳剤(3)の調製法を以下に示す。石灰処理ゼラチン17.8g、臭化カリウム6.2gとヨウ化カリウム0.46gを含む蒸留水1345mlを反応容器に入れ、45℃に昇温した。この溶液に強く攪拌しながら硝酸銀11.8gを含む水溶液70ml(A)と臭化カリウム3.8gを含む水溶液70ml(B)とを45秒間で添加した。4分間45℃に保った後、反応溶液の温度を63℃に上昇させた。石灰処理ゼラチン24gを蒸留水185mlと共に加えた後、硝酸銀73gを含む水溶液208ml(C)と臭化カリウムの24.8%水溶液(D)とを添加流量を加速しながら、かつ反応液の銀電位が飽和カロメル電極に対して0mVとなるように13分間にわたって添加した。添加終了後2分間63℃に保った後、反応液の温度を45℃に下降させた。次いで、1規定の水酸化ナトリウム15mlを添加した。その後2分後、硝酸銀8.4gを含む水溶液60ml(E)と沃化カリウム8.3gを含む水溶液461ml(F)とを5分間にわたって添加した。さらに硝酸銀148.8gを含む水溶液496ml(G)と臭化カリウムの25%水溶液(H)とを反応液の銀電位が飽和カロメル電極に対して90mVとなるように47分間にわたって添加した。添加終了30秒後に臭化カリウム2gおよびエチルチオスルホン酸ナトリウム0.06gを含む水溶液を添加した。温度を下げ、青色感光性ハロゲン化銀乳剤(2)と同様にして、脱塩および分散、化学増感を行った。得られた乳剤は球相当の直径で表した平均粒子サイズ0.44μm、平均厚み0.2μm等価円直径0.53μm、平均粒子アスペクト比2.6の六角平板粒子であった。

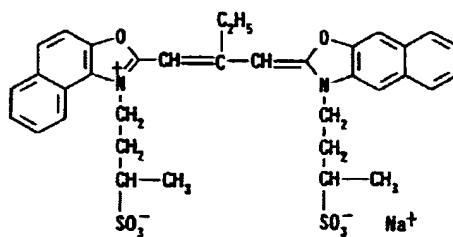
【0130】緑色感光性ハロゲン化銀乳剤(4)の調製法を以下に示す。平均分子量12000のゼラチン0.96gおよび臭化カリウム0.9gを含む蒸留水1191mlを反応容器に入れ、40℃に昇温した。この溶液に強く攪拌しながら硝酸銀0.7gを含む水溶液(A) 17.5mlと臭化カリウム1.051gを含む水溶液(B) 17.5mlとを120秒間で添加した。添加終了後30秒後に臭化カリウム10%水溶液を12mlを添加し、30秒後に、反応溶液の温度を75℃に上昇させた。石灰処理ゼラチン35.0gを蒸留水250mlと共に加えた後、硝酸銀19.0gを含む水溶液(C) 56mlと臭化カリウム10gを含む水溶液(D) 461mlとを添加流量を加速しながら7分35秒間にわたって添加した。次いで硝酸銀96.7gを含む水溶液(E) 302mlと沃化カリウムを臭化カリウム

ムとのモル比3.3 : 96.7で含む水溶液(F) (臭化カリウムの濃度26%)とを添加流量を加速しながら、かつ反応液の銀電位が飽和カロメル電極に対して0mVとなるように20分間で添加した。さらに硝酸銀24.1gを含む水溶液(G) 97mlと臭化カリウムの21.9%水溶液(H)とを3分間にわたって、かつ反応液の銀電位が飽和カロメル電極に対して0mVとなるように添加した。添加終了後1分間75℃に保った後、反応液の温度を55℃に下降させた。次いで、硝酸銀8.3gを含む水溶液(I) 122mlと沃化カリウム7.48gを含む水溶液(J) 332mlとを5分間にわたって添加した。添加終了後臭化カリウム7.11gを加え、55℃で1分間保った後、さらに硝酸銀62.8gを含む*

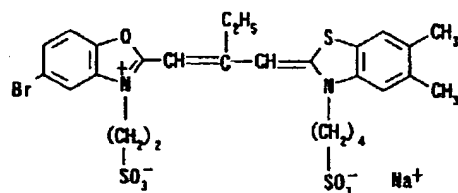
緑感性乳剤用増感色素(13)



緑感性乳剤用増感色素(14)



緑感性乳剤用増感色素(15)



【0132】緑色感光性ハロゲン化銀乳剤(5)の調製法を以下に示す。粒子形成中の水酸化ナトリウムとエチルチオスルホン酸ナトリウムを添加しない以外は、青色感光性ハロゲン化銀乳剤と同様にして、脱塩および分散を行い、化学増感は、緑色感光性ハロゲン化銀乳剤(4)と同様にした。得られた粒子は平板粒子が全粒子の全投影面積の99%を超える割合を占め、平均球相当直径は0.66μmで、平均厚み0.17μm等価円直径1.05μm、アスペクト比6.3であった。

※50

*水溶液(K) 228mlと臭化カリウム48.3gを含む水溶液(L) 201mlとを8分間にわたって添加した。温度を下げ、青色感光性ハロゲン化銀乳剤(1)と同様にして脱塩及び分散を行った。化学増感も、増感色素(12)の代わりに増感色素(13)、(14)、(15)の混合物のゼラチン分散物を添加した以外は、青色感光性ハロゲン化銀乳剤(1)と同様にして行った。得られた粒子は平板粒子が全粒子の全投影面積の99%を超える割合を占め、平均球相当直径は0.85μmで、平均厚み0.26μm等価円直径1.25μm、アスペクト比4.8であった。

【0131】

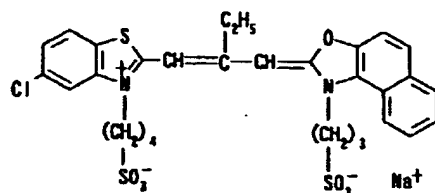
【化34】

※【0133】緑色感光性ハロゲン化銀乳剤(6)の調製法を以下に示す。粒子形成中の水酸化ナトリウムを添加しないで、エチルチオスルホン酸ナトリウムを4mgに変更する以外は、青色感光性ハロゲン化銀乳剤(3)と同様にして、粒子形成、脱塩および分散を行い、化学増感に於てセレン増感剤を添加しない以外は、緑色感光性ハロゲン化銀乳剤(4)と同様にして化学増感を行った。得られた乳剤は球相当の直径で表した平均粒子サイズ0.44μm、平均厚み0.2μm等価円直径0.53μm、

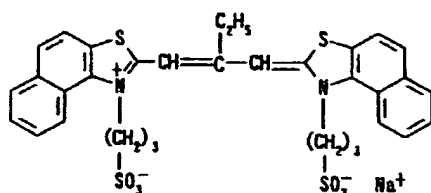
平均粒子アスペクト比2.6の六角平板粒子であった。

【0134】赤色感光性ハロゲン化銀乳剤(7)の調製法を以下に示す。化学増感時の増感色素を増感色素(16)のゼラチン分散物、増感色素(17)、(18)の混合物のゼラチン分散物にして、添加した以外は、緑色感光性ハロゲン化銀乳剤(4)と同様にして調製した。*

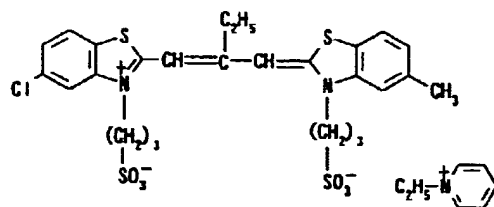
赤感性乳剤用増感色素(16)



赤感性乳剤用増感色素(17)



赤感性乳剤用増感色素(18)



【0136】赤色感光性ハロゲン化銀乳剤(8)の調製法を以下に示す。化学増感時の増感色素を増感色素(16)のゼラチン分散物、増感色素(17)、(18)の混合物のゼラチン分散物にして、添加した以外は、緑色感光性ハロゲン化銀乳剤(5)と同様にして調製した。得られた粒子は平板粒子が全粒子の全投影面積の99% 40を超える割合を占め、平均球相当直径は0.66μm、平均厚み0.17μm等価円直径1.05μm、アスペクト比6.3であった。

【0137】赤色感光性ハロゲン化銀乳剤(9)の調製法を以下に示す。化学増感時の増感色素を増感色素(16)のゼラチン分散物、増感色素(17)、(18)の混合物のゼラチン分散物にして、添加した以外は、緑色感光性ハロゲン化銀乳剤(6)と同様にして調製した。得られた乳剤は球相当の直径で表した平均粒子サイズ0.44μm、平均厚み0.2μm等価円直径0.53μm、平※50

*得られた粒子は平板粒子が全粒子の全投影面積の99%を超える割合を占め、平均球相当直径は0.85μmで、平均厚み0.26μm等価円直径1.25μm、アスペクト比4.8であった。

【0135】

【化35】

※均粒子アスペクト比2.6の六角平板粒子であった。

【0138】<水酸化亜鉛分散物の調製方法>一次粒子の粒子サイズが0.2μmの水酸化亜鉛の粉末31g、分散剤としてカルボキシメチルセルロース1.6gおよびポリアクリル酸ソーダ0.4g、石灰処理オセインゼラチン8.5g、水158.5mlを混合し、この混合物をガラスビーズを用いたミルで1時間分散した。分散後、ガラスビーズを分別し、水酸化亜鉛の分散物188gを得た。

【0139】<発色現像主薬及びカプラーの乳化分散物の調製方法>表1に示す組成の油相成分、水相成分をそれぞれ溶解し、60℃の均一な溶液とする。油相成分と水相成分を合わせ、1リットルのステンレス容器中で、直径5cmのディスペンサーのついたディゾルバーにより、10000rpmで20分間分散した。これに、後加水として、表1に示す量の温水を加え、2000rpmで

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10分間混合した。このようにして、シアン、マゼンタ、イエロー3色のカプラーの乳化分散物を調製した。

【0140】

【表1】

表 1

		シアン	マゼンタ	イエロー
油相	ソノカバ	CC-1	3.58 g	—
	マノカバ	CM-1	—	2.63 g
	イロカバ	CY-1	—	—
	現像主薬	D-10	1.49 g	2.25 g
	現像主薬	D-15	0.73 g	—
	トリメチルフェニール		2.75 g	2.5 g
	酢酸エチル		6 ml	6 ml
水相	シロキサン		6 ml	6 ml
	石灰処理ワタ		4 g	4 g
	トリメチルフェニール酸ナトリウム		0.27 g	0.27 g
	水		53 ml	53 ml
	後加水		28 ml	30 ml

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【0142】＜イエローフィルター、マゼンタフィルター、及びアンチハレーション層用染料組成物の調製＞染料組成物は以下のように乳化分散物として調製し添加した。イエロー染料（YF-1）7.1gを、6.6gのトリクレジルフォスフェート、30ccの酢酸エチル、及び30ccのシクロヘキサノンに溶解し、0.75gのドデシルベンゼンスルホン酸ソーダを含む7.8%ゼラチン水溶液135gに投入し、ディゾルバー攪拌機を用いて、10000回転で20分間攪拌し、乳化分散した。分散後、全体が260gとなるよう蒸留水を加え、2000回転で10分間混合し、イエローフィルター層用染料分散物を調製した。同様に、染料をマゼンタ染料（MF-1）6.1gに変えて、マゼンタフィルター層用染料分散物を調製した。また、同様に、染料をシアン染料（CF-1）8.9gに変えて、アンチハレーション層用染料分散物を調製した。

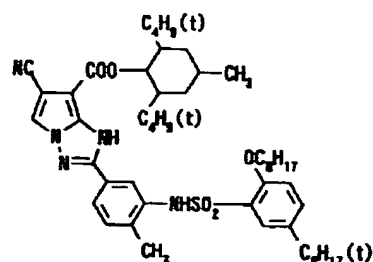
【0143】

【化37】

【0141】

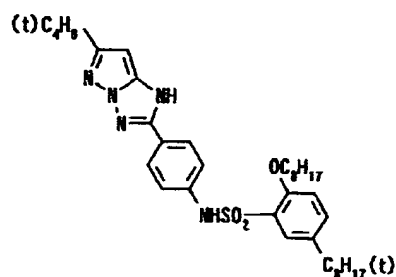
【化36】

CC - 1



20

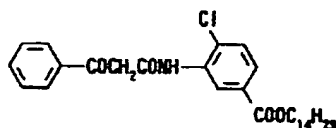
C M - 1



30

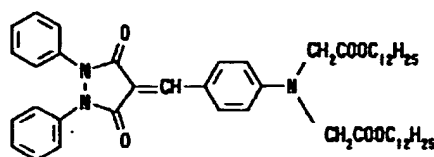
40

C Y - 1

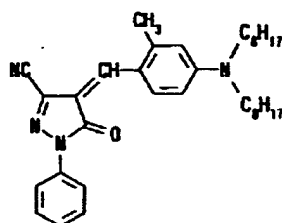


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Y F - 1

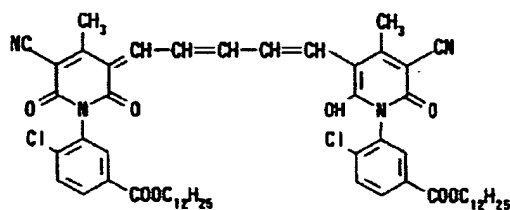
84



M F - 1



C F - 1



【0144】＜支持体の作成＞ついで以下に示す方法にて本発明に用いる支持体を作成した。ポリエチレン-2, 6-ナフタレート (PEN) ポリマー100重量単位と紫外線吸収剤としてTinuvin P. 326 (チバ、ガイギー社製) 2重量部とを乾燥した後、300度にて溶融後、T型ダイから押し出し、140度で3.3倍の縦延伸を行い、続いて130度で3.3倍の横延伸を行い、更に250度で6秒間熱固定して厚さ92 μ mのPENフィルムを得た。なおこのPENフィルムにはブルー染料、マゼンタ染料、イエロー染料 (公開技報: 公技番号94-6023号記載のI-1、I-4、I-6、I-24、I-26、I-27、II-5) をイエロー濃度0.01、マゼンタ濃度0.08、シアン濃度0.09になるよう添加した。更に、直径20cmのステンレス巻き芯に巻き付けて、113度、30時間の熱履歴を

与え、巻きぐせのつきにくい支持体とした。
＜下塗り層の塗設＞上記支持体は、その両面にコロナ放電処理、UV照射処理、さらにグロー放電処理をした後、それぞれの面にゼラチン (0.1g/ m^2)、ソジウム α -スルホジ-2-エチルヘキシルサクシネート (0.01g/ m^2)、サルチル酸 (0.025g/ m^2)、PQ-1 (0.005g/ m^2)、PQ-2 (0.006g/ m^2) からなる下塗液を塗布して (10cc/ m^2 、バーコーター使用)、下塗層を延伸時高温側面に設けた。乾燥は115度、6分実施した (乾燥ゾーンの口*50

*ローラーや搬送装置はすべて115度とした)。

＜バック層の塗設＞

1) 帯電防止層の塗設

平均粒径0.005 μ の酸化スズ-酸化アンチモン複合物の比抵抗が5 $\Omega \cdot \text{cm}$ の微粒子粉末の分散物 (2次凝集粒子径 約0.08 μ ; 0.027g/ m^2)、ゼラチン (0.03g/ m^2)、(C₁₂H₂₅SO₂CH₂CH₂NHCO)₂CH₂ (0.02g/ m^2)、ポリ (重合度10) オキシエチレン-p-ノニルフェノール (0.005g/ m^2)、PQ-3 (0.008g/ m^2) 及びレゾルシンを塗布した。

2) 磁気記録層の塗設

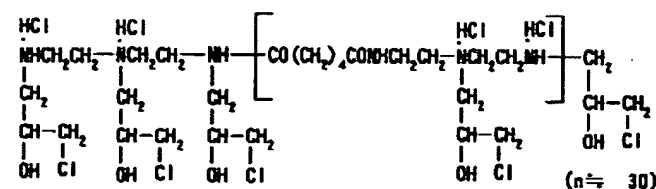
3-ポリ (重合度15) オキシエチレン-アロピルオキシトリメトキシシラン (15重量%) で被覆処理されたコバルト- γ -酸化鉄 (比表面積43 m^2/g 、長軸0.14 μ 、短軸0.03 μ 、飽和磁化89emu/g、Fe²⁺/Fe³⁺=6/94、表面は酸化アルミ酸化珪素で酸化鉄の2重量%で処理されている) 0.06g/ m^2 をジアセチルセルロース1.15g/ m^2 (酸化鉄の分散はオープンニーダーとサンドミルで実施した)、硬化剤としてPQ-4 (0.075g/ m^2)、PQ-5 (0.004g/ m^2) を、溶媒としてアセトン、メチルエチルケトン、シクロヘキサノン、ジブチルフタレートを用いてバーコーターで塗布し、膜厚1.2 μ mの磁気記録層を得た。滑り剤としてC₆H₁₃CH(OH)C₁₀H₂₀COOC₄H₉ (50g/ m^2)、マット剤としてシリカ粒子 (平均粒径1.0 μ m) と研磨剤の酸化アルミ (レイノルズメタルReynolds Metal 社製ERC-DBM; 平均粒径0.44 μ m) をそれぞれ5m

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*105℃で溶融し、常温のプロピレンモノメチルエーテル（10倍量）に注加分散して作成した後、アセトン中で分散物（平均粒径 0.01μ ）にしてから添加した。乾燥は115℃、6分行った（乾燥ゾーンのローラーや搬送装置はすべて115℃）。滑り層は、動摩擦係数0.10（5mmφのステンレス硬球、荷重100g、スピード6cm/分）、静摩擦係数0.09（クリップ法）、また前述の乳剤面と滑り層の動摩擦係数も0.18と優れた特性であった。

【0145】

【化38】


$$\begin{array}{c}
 \text{O} \\
 \diagup \quad \diagdown \\
 \text{H}(\text{OCH}_2\text{CH}_2)_p\text{O} \quad \text{CH}_2\text{OCOC}_n\text{H}_{2n+1} \\
 \diagdown \quad \diagup \\
 \text{O}
 \end{array}
 \begin{array}{c}
 \text{O} \\
 \diagup \quad \diagdown \\
 \text{O}(\text{CH}_2\text{CH}_2\text{O})_q\text{H} \\
 \diagdown \quad \diagup \\
 \text{O}
 \end{array}
 \begin{array}{c}
 \text{O} \\
 \diagup \quad \diagdown \\
 \text{O}(\text{CH}_2\text{CH}_2\text{O})_r\text{H} \\
 \diagdown \quad \diagup \\
 \text{O}
 \end{array}
 \quad \begin{array}{l}
 (n=17) \\
 (p+q+r \approx 20)
 \end{array}$$
[illegible]
$$\left[\text{C}_6\text{H}_4(\text{NCO})\text{CH}_2 \right]_n \quad (n \approx 2 \sim 5)$$
$$(\text{CH}_3\text{O})_3\text{SiCH}_2\text{CH}_2\text{CH}_2\text{O}(\text{CH}_2\text{CH}_2\text{O})_n\text{CH}_3 \quad (n \approx 7.3)$$
$$C_{57}H_{101}(CH_2CH_2O)_nH \quad (n \approx 16)$$
$$\text{C}_8\text{F}_{17}\text{SO}_2-\text{N}(\text{CH}_2\text{CH}_2\text{O})_n(\text{CH}_2)_4\text{SO}_3\text{Na} \quad (n \approx 4)$$

$$\quad \quad \quad |$$

$$\quad \quad \quad \text{C}_6\text{H}_5$$

【0146】以上の素材、ベースを用い、表2に示す多層構成の感光部材101を作製した。 ※【0147】

※ 【表2】

表2 感光部材101

層構成	主 要 素 材	塗布量 (g/m ²)
第13層 保護層	ゼラチン マツト剤 (シリカ)	0.89 0.02
第12層 中間層	ゼラチン 水酸化亜鉛	0.76 0.34
第11層 (D-発色層) (高感層)	ゼラチン ハロゲン化銀乳剤(1) イエローカプラー(CY-1) 現像主薬(D-10) トリクレジルフォスフェート	0.86 0.50 (銀量) 0.29 0.28 0.36
第10層 (D-発色層) (低感層)	ゼラチン ハロゲン化銀乳剤(2) ハロゲン化銀乳剤(3) イエローカプラー(CY-1) 現像主薬(D-10) トリクレジルフォスフェート	1.44 0.25 (銀量) 0.25 (銀量) 0.45 0.46 0.56
第9層 中間層 (D-71染料層)	ゼラチン イエロー染料 YP-1 トリクレジルフォスフェート	0.21 0.14 0.13
第8層 (D-発色層) (高感層)	ゼラチン ハロゲン化銀乳剤(4) マゼンタカプラー(CM-1) 現像主薬(D-10) トリクレジルフォスフェート	0.43 0.55 (銀量) 0.04 0.03 0.04
第7層 (D-発色層) (中感層)	ゼラチン ハロゲン化銀乳剤(5) マゼンタカプラー(CM-1) 現像主薬(D-10) トリクレジルフォスフェート	0.5 0.35 (銀量) 0.07 0.06 0.07
第6層 (D-発色層) (低感層)	ゼラチン ハロゲン化銀乳剤(6) マゼンタカプラー(CM-1) 現像主薬(D-10) トリクレジルフォスフェート	0.52 0.34 (銀量) 0.19 0.16 0.18
第5層 中間層 (D-71染料層)	ゼラチン マゼンタ染料 MP-1 水酸化亜鉛 トリクレジルフォスフェート	1.15 0.1 2.03 0.1

【0148】

* * 【表3】

表2 (続き)

第4層 シアン発色層 (高感層)	ゼラチン	0.96
	ハロゲン化銀乳剤(7)	1.05 (銀量)
	シアンカプラー (CC-1)	0.07
	現像主薬 (D-10)	0.03
	現像主薬 (D-15)	0.014
	トリクレジルフォスフェート	0.05
第3層 シアン発色層 (中感層)	ゼラチン	0.24
	ハロゲン化銀乳剤(8)	0.27 (銀量)
	シアンカプラー (CC-1)	0.054
	現像主薬 (D-10)	0.022
	現像主薬 (D-15)	0.011
	トリクレジルフォスフェート	0.04
第2層 シアン発色層 (低感層)	ゼラチン	0.73
	ハロゲン化銀乳剤(9)	0.55 (銀量)
	シアンカプラー (CC-1)	0.32
	現像主薬 (D-10)	0.13
	現像主薬 (D-15)	0.065
	トリクレジルフォスフェート	0.25
第1層 アナルゲン層	ゼラチン	0.24
	シアン染料CF-1	0.2
	トリクレジルフォスフェート	0.15
下塗り層		
92 μのPENベース		
下塗り層		
帯電防止層		
磁気記録層		
滑り層		

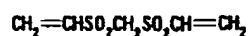
注. 上記の感光層側の塗布層は、硬膜剤 (H-1) 0.1 g/m²によって硬膜されている。

【0149】

【化39】

H-1

* 【0150】更に、表3に示す内容の第1処理部材R-1、及び表4に示す内容の第2処理部材R-2を作成した。



30 【0151】

* 【表4】

表3. 第1処理部材 R-1

層構成	主要添加素材	添加量 (g/m ²)
第4層	ゼラチン	0.22
	κ-カラギナン	0.06
	シリコンオイル	0.02
	マツト剤 (PMMA)	0.4
第3層	ゼラチン	0.24
	硬膜剤 (H-2)	0.18
第2層	ゼラチン	2.41
	デキストラン	1.31
	増染剤 (P-1)	2.44
	ピコリン酸グアニジン	5.82
	キノリン酸カリウム	0.45
	キノリン酸ナトリウム	0.36
第1層	ゼラチン	0.19
	硬膜剤 (H-2)	0.18
下塗り層		
63 μPETベース		

【0152】

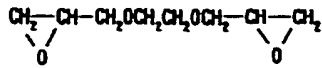
【化40】

H - 2

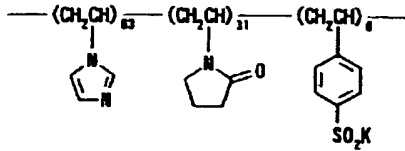
91

*【0153】

【表5】



P - 1



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*

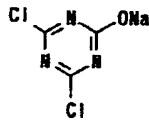
表4. 第2処理部材 R-2

層構成	主要添加素材	添加量 (g/m ²)
第4層	ゼラチン マツト剤 (シリカ)	0.49 0.01
第3層	ゼラチン 硬膜剤 (H-3)	0.24 0.25
第2層	ゼラチン ポリアクリル酸 (20%中和物) ハロゲン化銅溶剤	4.89 2.31 5.77
第1層	ゼラチン 硬膜剤 (H-3)	0.37 0.58
ゼラチン下塗り層		
63 μPETベース		

【0154】

【化41】

H - 3



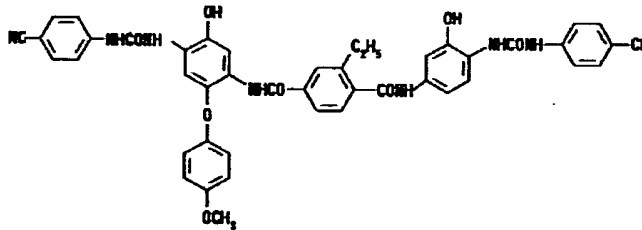
※【0155】次いで、表2中の第2, 3, 4層のシアンカプラー、第6, 7, 8層のマゼンタカプラー、10, 11層のイエローカプラーを、等モル量、表5に示した様に変更する以外は同様の感光部材102-111を作成した。

30 【0156】

【化42】

※

比較カプラーA (特開昭59-177558号記載のカプラー)



【0157】上記感光部材101~111を白色光にて露光後、40℃の水を15cc/m²(最大膨潤の45%に相当)付与後、第1処理部材R-1と重ね、83℃のヒートドラムで感光部材のバック面から17秒間加熱した。第1処理部材R-1を感光部材101から剥離し、感光部材に再び40℃の水を15cc/m²付与後、第2処理部材R-2と重ね、83℃10秒間加熱した。第2処理部材R-2を感光部材から剥離し、最高濃度(D_{max})を、★

★X-lite 社製X-lite 304にて求めた。また、露光後の感光材料101-111を、特開平9-269572号の実施例1に記載のI-1の現像処理処方に従って処理を行い、各色(B, G, R)の最高濃度(D_{max})を求めた。結果を第5表に示す。

【0158】

【表6】

表5

感光材料	カ プ ラ ー			熱 現 像			CN-16処理			備 考
	イエロー	マゼンタ	シアン	イエロー	マゼンタ	シアン	イエロー	マゼンタ	シアン	
101	CY-1	CM-1	CC-1	2.31	2.57	2.88	0.56	1.09	1.21	比較例
102	Y-1	CM-1	CC-1	2.33	2.56	2.88	2.06	1.11	1.20	本発明
103	CY-1	M-1	CC-1	2.31	2.57	2.89	0.56	2.78	1.21	本発明
104	CY-1	CM-1	C-1	2.31	2.58	2.90	0.55	1.14	3.01	本発明
105	Y-3	M-2	C-2	2.31	2.60	2.91	2.07	2.80	3.02	本発明
106	Y-4	M-3	C-3	2.30	2.61	2.92	2.11	2.79	2.99	本発明
107	Y-6	M-5	C-7	2.29	2.62	2.91	2.13	2.81	2.94	本発明
108	Y-8	M-7	C-8	2.31	2.62	2.90	2.15	2.81	3.03	本発明
109	Y-10	M-9	C-4	2.31	2.61	2.88	2.20	2.78	2.98	本発明
110	Y-11	M-12	C-6	2.33	2.63	2.94	2.22	2.80	2.99	本発明
111	CY-1	CM-1	比較カラー A	2.30	2.57	2.77	0.55	1.10	1.58	比較例

【0159】表5より明らかな様に、本発明のカプラーを用いた感光材料102～110は、比較用の感光材料101又は111と比べて熱現像及びCN-16処理ともに、高い発色性を示す事が分かる。

*【0160】

【発明の効果】本発明の感光材料によって、熱現像処理でも湿式現像処理でも高い発色性（高い最大発色濃度）

*20 が得られる。